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International Conference of Agricultural Economists

Membership—Membership in the International Conference is open to all those interested in the field of agriculture. A fee of five dollars pays for membership through the close of the next Conference—September, 1938. Proceedings of the Fourth Conference will be forwarded to members shortly; these will be mailed from England. The membership fee may be paid to either J. R. Currie, Dartington Hall, Totnes, Devon, England or G. F. Warren, Cornell University, Ithaca, New York.

Fifth Conference—The Fifth Conference will be held at MacDonald College near Montreal in the Province of Quebec, Canada, about September 1, 1938.

Election of Council—Members who have paid their fees by the first of April, 1937, will be asked to ballot by mail for the election of three American members of the Council

At a meeting held in Chicago on December 29, 1936, the following were nominated:

H. C. M. Case
B. H. Hibbard
F. F. Hill
Asher Hobson
C. E. Ladd
T. W. Schultz

It was decided that the ballots should be distributed by the Secretary-Treasurer of the American Farm Economic Association and that Professor G. F. Warren, Vice-President of the Conference, act as teller and announce the results of the election.

Those who wish to vote in this election should pay their fees for the current biennium by April 1, 1937.

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AGRICULTURAL CONSERVATION—AN ASPECT OF LAND UTILIZATION[1]

M. L. WILSON
ASSISTANT SECRETARY OF AGRICULTURE

The term "conservation" is so broad and has such diversity of specific meanings and applications that it has become a symbol for a whole bundle of ideas. It has come to stand for a goal, as an objective of the general welfare. As such, in the public mind it stands along with other symbols or goals, such as "prosperity for all," "the greatest good for the greatest number," "the American way of life," "building for the future." Such goals usually have first a restricted meaning. But as they grow they expand so as to encompass a host of human and other relationships. So with the term "conservation." It started, no doubt, with the exhaustible natural resources. But when men talk of the conservation of human as well as natural resources we realize that the term has come to have meaning within the great circle circumscribing the whole of man and his natural world.

Within the bundle of ideas covered by the term in its newer and broader sense are such concepts as, balancing the present and future needs of society; the elimination of waste; the avoidance of useless exploitation; the planned use of those resources like minerals and the soil which do not replace themselves; the maintenance of what the biologists refer to as the balance in nature, especially with respect to forests, wild life, etc. A rather formidable list of concepts of this type could be made, all of which are specific aspects of conservation. The whole conservation idea leads easily and naturally to the idea of planning the relationships of man and economic society in relation to physical

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

resources as contrasted with the haphazard, highly laissez-faire attitude of reckless exploitation.

We can think of many of the great ideas of men either in terms of Plato's conception of an idea as a truth eternal in the cosmos, fixed, changeless, and abstract—to be discovered through men's rational faculties; or we may conceive great ideas as movements, as instruments of men that grow and change, that are modified by man in the course of social evolution. I prefer to look at conservation in the latter sense.

As a modern idea it came out of the natural sciences. Beginning in the early seventies and continuing for more than thirty years the American Association for the Advancement of Science repeatedly urged conservation on the American people. The men of science stood more or less alone in propagandizing the idea which later produced the forest reserves, the Geological Survey with its study of water resources and the reservations of various kinds on the public domain. Theodore Roosevelt dramatized the idea of conservation and made the public "conservation-conscious" through the Congress of the Governors and later through the National Conservation Commission of 1908. President Van Hise of the University of Wisconsin published a volume in 1910, "Conservation of the Natural Resources of the United States," which though written in popular style, gave a philosophy and a meaning to much of the factual material of the National Conservation Commission's report. Few popular books have exerted a wider attitude-forming influence than did the book of President Van Hise.

Twenty years later, in 1930, the Van Hise book was reissued and brought up to date by a group of specialists in particular fields.[2] This later book treated in a factual way the mineral resources, water, forests, land, and wild life. The foreword was signed by John Hayes Hammond. I quote two significant passages therefrom:

> . . . The "farm problem" has gradually but inevitably become the most impressive question before the public. It is now recognized as a problem whose proper solution will require the most delicate adjustment.
>
> There are, of course, two outstanding problems in connection with the conservation of land; the first is the prevention of erosion and the second, the return to the soil of those elements essential for plant life.
>
> One authority on this subject has said: "Soil erosion is the greatest single menace confronting the physical side of land utilization in this country." Between 40 and 50 per cent of the land now in tilled crops has

[2] *Conservation of our Natural Resources*, Based on Van Hise's *Conservation of Natural Resources in the United States*, Loomis Havemyer, Editor. New York, The Macmillan Co., 1930.

suffered some degree from soil erosion and about one-quarter of this has suffered very materially. It is not only the actual loss of the land itself that is so serious, but also the depletion of those limiting and essential factors in soil productivity: nitrogen, potassium, phosphorus. At the present time the loss of these elements through soil wash is twenty-one times greater than through crop removal.

We have been ruthlessly mining the land from the beginning on the supposition that there would always be enough in this vast country of ours to satisfy all needs. Only recently the truth of the situation has begun to dawn on the minds of the people. They are coming to realize that unless we adopt methods to prevent or lessen erosion and cease taking and not returning plant food, our land, at least in certain sections of the country, will be as depleted as that in portions of the old world.

One of the outstanding reasons today for the prosperity of this country is the fertility of the land and the fact that we are able to supply not only our own needs but also those of many other countries. This is a heritage that we should guard with all care, for much of the comfort and happiness of the world depends upon our ability to raise these great crops necessary for the sustenance of life. The welfare of the land should be one of the major governmental problems and information should be given to those in whose hands the care of the farms has been intrusted. They should be shown what land is too steep for cultivation, and have demonstrated to them the latest discoveries in scientific farming, rotation of crops, and the return to the soil of those elements necessary for the highest development of plant life. If this program is carried out we may look forward to years of prosperity, for on the firm foundation of fertile land the welfare of the nation will rest. . . .

. . . Irrespective of the moral obligation we have to future generations in bequeathing to them unimpaired the bounteous welfare of the natural resources—part of their heritage—in so far as the requirements of our own generation admit we have a selfish interest in the conservation of these resources as vitally affecting our own welfare. . . .[3]

The last chapter of this book is written by an anthropologist. In it he argues that the idea of conservation is the greatest generalization which man has realized through science. Man's ethical and religious generalizations have not come from science. Conservation as a scientific generalization took birth because man has been able through science to step aside, so to speak, and view himself and his natural world about him. The result has been generalizations as to the relationships of his resources to human needs and goals. On this basis lies the great hope that through science as an instrument man may be able to relate himself to his physical world. In the final chapter the anthropologist says "in a few thousand years man has risen from the level of the savage to the height of the great creations of science, literature and art. The human mind has dared to ask the meaning of the universe,

[3] Havemyer, *op. cit.*, pp. xiii-xv.

even to the purpose of its own existence. It is in order that humanity may be given an opportunity to develop through the years to come under the most advantageous conditions that we should conserve our natural resources and thus make possible to future human beings a God-like destiny.'"[4]

So much for the general idea of conservation. What about conservation and agriculture? The modern story, no doubt, begins with Malthus. In the 1880's the western world was startled by the presidential address of William Crooks before the British Society for the Advancement of Science wherein he predicted a starving humanity due to the loss of soil fertility through the various processes induced by man. All of us of this generation have heard the warnings about mining the soil. I believe this idea first began as an elaboration of the Crooks idea of chemical fertility but as it expanded it came to include the physical and geological idea of soil erosion and the economic ideas of land utilization and land use management.

Even within the bounds of that part of the conservation idea which pertains to agriculture there are many sub-divisions. Widespread application of the scientific method has multiplied the approaches to agricultural conservation. This can be shown by reference to the Federal Government's program in conservation research as well as in that of the universities. During the first third of the present century our governmental agricultural agencies of education and research operated on a highly compartmentized individualistic basis. Each bureau in a federal department and each college department tended to run its own show without regard to the others. This worked all right for a while but when agricultural economics began to appear, then of necessity, the interest of the economic and governmental institutions began to cut across the other technical departments in agriculture. Then with the introduction of economic planning in agriculture the old compartmentized idea tended to break down. As an illustration of what has happened, I quote the following significant paragraph from the presidential address of R. M. Salter of the Department of Agronomy at Ohio State University before the American Society of Agronomy meeting this fall:

> The land use movement is the child of agricultural distress. In the post-war years, when agriculture was lagging farther and farther behind industry, there grew in the minds of many the conviction that the ills of agriculture were not alone the result of external maladjustments, but that agriculture was really suffering internally as well, and that what was

[4] P. 527.

needed, regardless of what else, was a new land policy in America befitting its maturity. After the depression struck and agriculture had begun its precipitous decline toward the economic cellar, it appeared that the time for action had arrived. In November, 1931, the first "National Conference on Land Utilization" was called jointly by the Secretary of Agriculture and the Executive Committee of the Association of Land Grant Colleges and Universities.

The greatest strength and, I submit, also the greatest weakness of the land use movement lies in the fact that it is premised on planning. Strength in that land use planning implies collective thinking on problems that are not really dissectible; the integration of viewpoints—agronomy, animal husbandry, engineering, farm management, forestry, economics, sociology, etc.; a balance interpretation of pertinent facts; a basis for coordinated action. Potential weakness in that land use planning in its broader aspects assumed that it is within the power of the human intellect to evaluate and interpret all of the complex forces which affect the use of land and life on the land, and further, that someone possesses enough prophetic vision to project these evaluations and interpretations into the future. . . .

As agronomists, we cannot readily sidestep the responsibility for seeing that, so far as possible, measures or movements that affect the handling of the soil or the crops that are grown on it, whether labelled crop control, soil conservation or land use, do not conflict with good agronomic precepts. We cannot allow our conservatism to keep us aloof from these matters even though they may savor of evangelism or politics. Whether we participate or not, they will be done in the name of our science.

It is these last three sentences in particular which illustrate the point I am trying to make.

Now to me it is significant that in the present situation there have been instituted a number of lines of action, each involving programs of conservation. Each has originated in a natural sort of way. As they move forward they converge toward a set of goals which can well be called agricultural conservation and land use planning. Since society is an evolving, growing kind of thing it grows according to its needs in specific fields and not according to any master blueprint. Let me enumerate the present emigrant trains of the conservation movement on the agricultural frontier whose origins are different, but which are all converging on a common point.

The land economics movement is one. As I see it, this was largely incubated at the University of Wisconsin under the influence of Dr. Ely and his associates, Taylor, Hibbard, and others, aided and encouraged by President Van Hise. Out of this beginning there has come the Land Economics Division in the Bureau of Agricultural Economics and a body of economic doctrine about land use planning, land policy, sub-marginal land,

zoning, etc. Paralleling this and of the same general type has been the early work at Cornell. For example, I may cite the sub-marginal land and reforestation program begun in New York by Governor Franklin D. Roosevelt. This whole school has crystallized its ideas around the economic approach. They agree on the principle of land use planning. The action programs of the Resettlement Administration with reference to sub-marginal land and resettlement of sub-marginal farmers is a logical development.

Then there is the forest conservation movement started with the creation of the federal forests but as this program developed, it became necessary to consider forest lands as a basis for something more than the simple production of trees as a crop. It has been necessary to develop management policies on a multiple use basis, including grazing, recreation, and water shed protection. The foresters have evolved the idea of the management of a given area of land so as to make this land contribute the most towards the public welfare. Involved in this, of course, is the principle of sustained yield so as to contribute to continuity of the communities that depend upon the resources.

The Soil Conservation Service began largely with the thesis of Hugh Bennett that we must organize the use of land so as to save the surface soil. The dust storms and the floods have served to drive home and dramatize the need for saving soil. As the Soil Conservation Service developed its 160 projects throughout the country it was found that in organizing land management on the basis of conserving the surface soil there developed automatically a great many economic questions and ideas. As I see it now, the Soil Conservation Service demonstration projects have become primarily demonstrations of a kind of planned land use.

The Agricultural Adjustment Administration started as an instrumentality for increasing farm income but it became necessary to think about the flexibility in the allotments on different farms. This evolved into what might be called the farm management approach. And this in turn gave rise to a concept of a balance between soil depleting and soil conserving crops—a phase of the concept of land utilization.

Water and flood control is another phase of conservation. With the national program for controlling destructive floods, as well as conserving water, has come the idea of holding the water back in the upper reaches of water sheds so that the run-off will be less rapid and destructive. To do this it is necessary that

certain land use management practises be placed in effect on the water sheds. The flood control idea in part traces back to a system of land use management on the water shed.

The wild life conservationists start their argument with the idea of a balance in nature. This balance in nature is related to the use of the land in a given area, and this turns out to be again a phase of land use management.

The highly commendable planning movement that is carried on through the National Resources Committee and the state planning boards has become very important. When the boards touch the natural resources, their programs turn out to have a very close relationship with the use of the land. While the type of planning involved in this management is broader than the field of agriculture, it helps to bring out the relationships between the agricultural field, other groups, and society as a whole.

Thus, we see that we have today a number of governmental action programs, each arising for some good reason, each more or less definitely related to a particular group of people, but all moving toward a common set of goals.

I should like to make three brief generalizations about this situation. First, each of these action programs has started from a different place with a particular group of people, with a particular set of ideas, but when these ideas take the form of a concrete action program on a specific geographical area they all boil down to the same thing, namely, planning the land use of an area. Whether the field of action is called land policy making, land utilization, or land use management, they all arise out of the same broad ideal.

Second, at this particular time there is need for very careful thought about the coordination of these different approaches in terms of long-time planning as well as the flexibility of short-time planning.

Third, these action programs of agricultural conservation grow out of a change in the patterns of thought of contemporary civilization; they are an expression of something which has been developing but which was not ready to burst into bloom hitherto.

Underlying the concept of "agricultural conservation" is an important assumption. This assumption, or major premise, is often unexpressed, but I believe it needs to be stated so that we may realize its implications. The assumption is that society has an interest in the privately owned farm, forest and grazing lands of the nation which is at least equal to the interest of the owner himself. That is to say, the land owner does not really own his

land with an absolute and unlimited title, but, instead, owns his land in partnership with society. If this be a correct assumption, then the partnership throws upon society the obligation to assist the landowner to make the best use of his lands and it throws upon the landowner the duty so to use his lands as to conserve the soil and its fertility that the future generations, whose interests society exists to protect, will inherit fertile fields and forests rather than eroded slopes and barren plains.

It is significant that the existence of this partnership has been recognized by the common law of England and of America from its earliest origins. The title of the landowner, which the lawyers call "fee simple absolute," has never really been "absolute" as against society. That the interest of society placed limits upon the right of the landowner to do as he pleased on his own land has been recognized by outstanding legal commentators.

The growth of this principle in the common law has kept pace with growth in society. The need for public regulation of private land use, to protect the public's partnership interest, has become steadily greater with the increased pressure of population on the land, and the law has recognized that interest.

We have all become familiar within the last few years with the so-called "due process" clause. The Fourteenth Amendment to the Federal Constitution provides that no state shall deprive any citizen of his liberty or property without due process of law. Similar provisions may be found in almost all the state constitutions. The guaranty of due process is deemed to protect the individual from unreasonable interference by the state with the freedom with which he may carry on operations on his own lands. But the guaranteed freedom is not absolute. That power which the state may exercise to regulate private land use, or other private conduct, in the public interest, is called "the police power." A regulation of land use is not "without due process of law" if the regulation can be justified as necessary in the public interest. The police power exists to protect the health, safety, prosperity and general welfare of the community and has been repeatedly upheld by the Supreme Court.

We all know the consequences of unchecked soil erosion. Action in the public interest to control erosion is an exercise of the police power in the interest of the health and welfare of the community. Secretary Wallace has summarized this idea in the statement that, "The nation that destroys its soil destroys itself."

I come back, therefore, to what I have called the underlying assumption in agricultural conservation—that a partnership exists between the landowner and society: a partnership which justifies assistance to farmers for soil conservation practices and justifies, also, public regulation of private land use, which will require the possibly unwilling minority to refrain from wasting the nation's heritage.

How can such a program of combined subsidy and regulation be brought into being?

There are several alternatives—contracts between the Federal Government and individual land-occupiers, state programs, county programs, a program employing the several thousand special local districts now in existence, and one utilizing local private farmers' associations. If I had the time I would examine each of these alternatives but in every case I would discover serious objections. I do not believe we can get what we want in this connection through any of these devices.

Now, the Land Policy Committee, the Soil Conservation Service, and the Solicitor's office in the Department of Agriculture have been at work on this problem for some time. They have worked in close consultation with representatives from a number of states. Political scientists, economists, agricultural specialists and lawyers have all contributed to this work. As a result, there has been submitted to the states a recommended state statute called "A Standard State Soil Conservation Districts Law." This statute provides for setting up soil conservation districts over naturally bounded areas, to carry on erosion control work, assist farmers to control erosion on their lands, and enforce the needed conservation practices upon lands of the unwilling and uncooperative minority.

Such a district has obvious advantages. It can be established over a naturally bounded area. It can have a majority of its officers elected by the local farmers. The question whether such a district shall come into existence can be left to a referendum of the farmers. Its operations can be controlled by the farmers. Since it will be a governmental agency, it can receive state appropriations as well as federal assistance and can regulate private land use so far as may prove necessary. In a word, such a district can be an efficient institutional agency for the purpose of a land-use program at the same time that it can carry out to the full the principles of economic democracy in agriculture. For these reasons I recommend it for your consideration.

Let me list some of the problems which I think economists, administrators, and planners should be thinking about in relation to these action programs and the future.

(1) We need more thinking as to goals and as our thinking progresses we need more definite statements as to what the goals are and how they are related to the public welfare, to the Federal Government, to the state, to the local community, and to the individual.

(2) Coordination. We need to study the problems of relationships and coordination probably more with the idea of getting effective teamwork and understanding rather than with the idea of bringing about revolutionary reorganization of governmental agencies.

(3) The democratic processes. We need to study with the greatest diligence, the democratic processes and the problem of relating citizen participation, citizen understanding and citizen responsibility with respect to the planning and action agencies.

(4) Balancing the social sciences and the natural sciences. Involved in land use planning are both the social and the natural sciences. I feel that the relationship between the two is unsatisfactory—often crude. But I feel a new improved relationship is going to grow out of this situation which will be quite satisfactory, if not excellent.

(5) Research. We need to continue the development of new types of research that center on agricultural conservation and land-use policies and that seek to integrate application of the social and the natural sciences in a way that will give the fullest meaning to the word "conservation."

ECONOMIC IMPLICATIONS OF THE AGRICULTURAL CONSERVATION PROGRAM[1]

F. F. Elliott
Agricultural Adjustment Administration

Economic implications of the Agricultural Conservation Program involve questions both of purpose and of method. Clarification of purpose is fundamental to any consideration of the significance of the program. Methods are equally significant from the point of view of their adequacy or inadequacy for accomplishing objectives or to the extent that some effects of their use are unintended. Attention therefore will be directed, first, to questions of purpose and then to alternative methods of approach and the adequacy of the present Act for obtaining the changes desirable from the standpoint of agricultural conservation and adjustment.

I. Purposes and Points of View in Conservation

Why, it may be asked, do we want conservation—what purpose or end do we seek to gain by it? Our first answer might be—we seek to conserve our agricultural resources in order to maintain or increase our agricultural producing power. It generally is recognized that American agriculture, historically, has been exploitive in character—that there has been a continuous depletion of soil fertility and, to a considerable extent, an actual physical destruction of the soil itself through erosion. Although depletion has not proceeded as yet to the point where the nation's food supply is endangered, the problem nevertheless is of direct national interest. The social interest in the soil is perpetual, covering an indefinite period of time. The Nation, consequently, must, in the interest of its own future security, concern itself with current agricultural policy as it may relate to or affect our most valued asset, the soil.

But in what kind of policy with respect to agricultural conservation should the Nation be most interested? Presumably there is a point beyond which the national interest in conservation ceases, or beyond which it is not warranted in going. To get a quantitative measure of this is perhaps impossible, but it may be possible to circumscribe the boundaries, in part at least, by calling attention to certain points of view and elements of the problem.

[1] This paper was read at the Twenty-seventh Annnual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

We can distinguish at least three points of view on conservation. There is *first* the extreme view which may be expressed as the desire to retain or restore our resources to their original or primeval state. This view would virtually preclude the commercial use of the resources. Although it is applicable in the case of parks, recreational sites, wild life refuges, and similar limited public uses, it, of course, is much too extreme to be at all practicable as a policy for our major agricultural lands.

A *second* but related view recognizes that the resources must be used, but that restoration of such as have or may become depleted is imperative regardless of the cost. This is in line with the thinking of those who believe that every eroded hillside should be restored and that soil fertility should be conserved and erosion prevented even though the cost may be considerably in excess of any determinable prospective return. Those who hold to this view assume that all our land is worth restoring and that, while we may not know definitely how much we are going to need in the future, we must take no chances and therefore must restore it all.

A *third* point of view recognizes that conservation of the soil is a good thing but that agricultural conservation does not mean conserving the soil alone, but also includes the maintenance of a proper relation between the soil and other agricultural resources. Thus, those who hold to this view are interested in the conservation of physical resources relative to the conservation of other resources associated with them and relative to the stage of economic and social development of the nation. They would not agree that conservation is an end in itself, nor that the current income sacrifices of present producers in securing it can be disregarded. They would hold, in fact, that restoration of the soil should be carried out only at such times and in such degree as it is economically feasible and desirable to do so. But they would say that the present depletion of the soil is in a large part entirely unnecessary, that it is the result of our purely individualistic system of handling the land and of our failure to develop an adequate policy for agriculture which will assure farmers reasonable prices and income.

It is this conception of the problem that is embodied, it seems to me, in the Soil Conservation and Domestic Allotment Act.

Purposes of the Soil Conservation and Domestic Allotment Act

The objectives of this Act, as set forth in the declaration of policy, may be grouped under three main heads: (1) Conserva-

tion of soil, (2) Promotion of the economic use of land, (3) Re-establishment of parity income to farmers.[2]

Although the purposes of the Act are thus explicitly stated, their meaning cannot be fully comprehended apart from the antecedents of the Act, particularly the Agricultural Adjustment Act, the Agricultural Marketing Act and the numerous proposals advanced in Congress throughout more than a decade of agitation for farm relief. The basic purpose underlying these Acts and the agitation back of them was to raise farm prices and income.

Under the original Agricultural Adjustment Act, production control was the primary method for bringing this about. Under the substitute Soil Conservation and Domestic Allotment Act, direct production control, as such, is not provided for except in that portion of the Act authorizing a plan of state aid after January 1, 1938. Soil conservation, which was incidental in the program under the old Act, now becomes primary under the new Act. But that the present conservation programs have had by-product production control effects is obvious. But it is equally obvious that the by-product control effects of the programs under this Act will be no more effective in really controlling output than were the incidental soil conservation effects of the old programs adequate for effecting real conservation. Hence, even though production control and soil conservation are fundamentally related methods for accomplishing the same purpose, no one should conclude that either is an effective substitute for the other. Surplus crops, to be sure, also may be soil depleting crops, but there is no assurance that production adjustments, sufficient for soil conservation, would always be adequate for maintaining reasonable prices. On the contrary, it is probable that the longer we practice soil conservation, the less effective it will be as a means for reducing surpluses.

But the controversy over farm relief is not so much over purposes as over methods. Almost everyone agrees that soil conservation is a good thing and that it should be fostered. They also agree that farmers as a group are entitled to an agricultural program that will enable them to obtain their "fair share of the national income." The real controversy begins when we try to reduce broad purposes to specific statements of objectives, and when we consider ways and means of accomplishing the objectives. The central point at issue, it appears to me, comes down

[2] These three objectives are restricted, in turn, by two overall conditions: (a) that the production of food and fibers not be discouraged to a point where supplies are insufficient to maintain normal domestic human consumption (average per capita consumption 1920-29), and (b) that a continuous and stable supply of agricultural commodities be maintained adequate to meet consumer demand at prices fair to both producers and consumers.

to this: To what extent can we depend upon unrestricted individual action and the free play of economic forces to bring about an effective conservation and adjustment program? And to what extent is group action necessary? If it is agreed that group action is necessary, what form should it take? Should it be group action motivated by subsidy and education, or should it be group action through the exercise of the police power?

II. Economic Implications of Alternative Methods of Attaining a Desirable Conservation and Adjustment Program for Agriculture

Implications and Consequences of a Policy of Private Initiative and Individual Action

Let us consider first the implications and consequences of free competition in agricultural production. But in using the phrase, "free competition in agricultural production," it should not be inferred that we think agricultural production prior to the Triple A was really freely competitive in the classical sense. Even though the individual farmer was free to decide what and how much he should produce, his decisions always were circumscribed and influenced by the institutional framework in which he lived. That framework was not the atomistic society of Adam Smith. Nor was it ever thus since the advent of the modern corporation. The farmer's decisions always have been conditioned by a multitude of physical and economic sanctions—both governmental and non-governmental; and especially so in recent decades. Share-cropping, leasing arrangements, health regulations, inspection and regulatory laws, tariffs, taxes, embargoes, quotas, freight rates, interest rates, and the like—all exerted an influence. Some of these things are simply custom, but are often more powerful than statute law.

Farmers are subjected also to the impact of all the economic controls and arrangements of private industry. Indeed, the liberty of the individual farmer to produce any amount of whatever he pleases in a national economy featured by mass production in industry, accompanied by administered prices and wages, is only the liberty to accept less liberty for himself than he and all other farmers would have if they acted as a group. For, economically speaking, liberty and income are a view of the same thing from different angles; namely, purchasing power.

In this radically restricted sense, therefore, let us consider how so-called "free competition" in agricultural production has

worked or might be expected to work in attaining the objectives set forth in the Soil Conservation and Domestic Allotment Act.

Competition Does Not Always Promote the Economic Use of Land

Let us begin by considering the way in which it works with respect to the attainment of the economic use of land. But here again we shall need to make clear, first of all, what we mean by the term "economic use of land." The term in the broad sense might be interpreted to include efficiency in production, conservation, income, elimination of submarginal land from agricultural production and practically everything else that affects the economy of land use. Inasmuch as conservation and income are both listed as separate objectives in the Act, and since submarginal land is not handled as such under the Agricultural Conservation Programs, I shall interpret the term, for purposes of the present discussion, to mean efficient production on land that should remain in agricultural use. That is, efficient production in the sense of minimizing labor and material costs and in maximizing profits from the individual point of view; and of geographic distribution and regional specialization of production in the sense of minimizing labor and other costs from the national point of view.[3]

From this point of view, it is important to note that efficiency is merely *rate* of output, or output per unit of input, and must not be confused with total output. Thus defined, it is always to the interest of the individual and the public to increase efficiency, provided such an increase is not permitted to have undesirable effects on total production. Now free competition in agricultural production is not merely the freedom of the individual to introduce labor-saving devices, reduce the costs of production, and increase the net income from a given total production; it is also the freedom to compete with his neighbor for a larger share of a limited market. It is, in addition, the freedom to force the less efficient neighbor into bankruptcy by so increasing production that the price falls and destroys his margin of profit. Where increased efficiency results only in increasing total output and does not reduce the hours of labor as largely happens in many situations, it ultimately leaves the more efficient with the entire mar-

[3] Economic use of land or economic production is sometimes defined as that use which will result in the maximum utilization of resources. Maximum utilization of resources, however, may and often does result in exploitation. This concept of the term therefore is too broad and should be narrowed to mean the maximum utilization of resources conditioned upon or consistent with the maintenance of the productive power of our soil. What we really want is economic production after we have resolved the conflict between individual and national interests in favor of conservation, and after we have resolved the conflict between the individual and group interest in favor of a production necessary for a desired income level.

ket but without any net gain except that experienced by the public generally; and the public benefits ultimately only when the displaced competitors can engage in the production of other goods and services. Complete freedom to compete, furthermore, may actually promote the use of lands that ought not be cultivated at all and thus lower average efficiency—to say nothing of its long-run effects because of accelerating the rate of erosion. Thus, so far as the economic use of land is concerned, the real issue is not whether free competition promotes such use, but rather at what rate it is or should be promoted.

Any study of the geographic distribution of agricultural production in the United States will show that, in general, the several principal crops and classes of livestock tend to be produced in those regions which are best fitted for their production. But obviously this tends to concentrate production where relative output per unit of effort is greatest. The use of labor-saving machinery likewise allows each individual farmer to cultivate a greater acreage than would be possible otherwise, and the use of improved varieties and strains of crops and livestock tends to result in greater yields per acre and per animal unit. The consequence has been that farmers as a group have frequently found themselves in an extremely unfavorable position as a result of increasing their efficiency of production, particularly since industry has not lowered its prices proportionately with its increased efficiency. And it is notorious that our extreme laissez faire policy toward land acquisition and settlement has resulted in important examples of unwise settlement and over-expansion.

Economic Interest of Farmer under Free Competition in Conflict with Conservation

Under conditions of free competition in agriculture, the immediate economic interest of a majority of individual producers repeatedly comes in conflict with that of the Nation with respect to soil conservation. The individual farmer frequently finds it necessary to discount the future heavily. When the choice lies between an uncertain future and a very real present, the latter usually wins out.

Herein lies the principal explanation of why we fail to achieve a desirable conservation program under a policy of private initiative and individual action. The most effective way to resolve this conflict is to equalize, by concerted action, the sacrifice in present gains obtained from following a system of farming that

leads to exploitation and the gains that can be expected from a system of farming that will lead to conservation.

In the present programs of the Agricultural Adjustment Administration, an attempt is made to equalize this sacrifice, in part at least, and actually in a considerable part, by means of grants to individual farmers in return for their substituting certain soil-conserving crops for soil-depleting crops and for adopting certain specific soil-conserving practices. This expenditure of public money is justified on the ground that the public interest in conservation is so overpowering that the Government is warranted in using present revenues derived from general taxation to insure its future security.

To induce the great mass of farmers to maintain soil fertility and control erosion simply through the use of educational appeal is usually impossible, since it may run counter to their immediate economic interests. Of course, there are a large number of farmers who are so financially situated that they are free of debt and possess sufficient means to discount present income so that they are able to, and do, maintain or even increase the productive capacity of their farms over a long period. There are, furthermore, great stretches of the country such as in the northeast tier of states, where the nature of the farming systems are such as to retain a large proportion of the farm land in hay and pasture, and hence, reduce to a minimum the problem of fertility maintenance and erosion control. But in the important commercial crop regions in the South and Middle West, the problem is serious and planning through concerted action seems necessary if adequate conservation is to be attained.

Competition Tends to Lower Costs but May Lower Prices More

With respect to its effect upon prices and income, competition often tends to cut prices faster than costs and so results in low returns and widespread maladjustment. This is due chiefly to the fact that the demand for the bulk of agricultural products, is inelastic. Because of this, farmers may obtain for certain important crops a larger cash return for a small or medium sized crop than for a large crop; and in addition, are usually able to produce a smaller crop at a somewhat smaller cost. On the other hand, however, the economics of free competition and the nature of farm production are such that farmers as a group often tend to produce much larger quantities of particular products than will return them a maximum income or even a reasonable income,

and find themselves unable voluntarily, except by extreme sacrifice, to curtail or adjust this excessive volume of production.

Unrestrained competition also tends to result in periodic maladjustments in the production of particular crops and classes of livestock. Common examples are found in the constant recurrence of periods of over- and under-production of hogs and beef cattle and of such crops as potatoes and cotton.

Thus, under conditions of free competition and unlimited freedom of action, farmers as a group find it difficult, if not impossible, to regularly adjust production to effective market demand. And this inability is an important factor in explaining why their purchasing power has been low relative to that of other groups.

But to get the complete picture, we also must consider the impact of relatively inflexible industrial prices and handling charges upon agriculture. In agriculture there is a relatively flexible price structure and the play of economic forces tends to operate in a competitive way. In industry, on the other hand, competitive forces do not have the same free play. The industrial life of the country has been organized into corporate systems subject to highly centralized control. The free play of supply and demand forces is either partially or completely suspended and there is substituted therefor conscious management of production and the administrative determination of prices and wages. In a dual economy such as this, which is automatic and flexible in some of its parts and managed and inflexible in others, can be self-regulating only by subjecting its unorganized parts to an intolerable strain.[4] This appears to be responsible, in a considerable degree, for the plight in which agriculture has found itself during the past decade or so, and if agriculture is to maintain or improve its position, relative to other groups, some form of group action seems essential.

Economic Implications and Consequences of a Policy of Group Action

In making the transition in the discussion from the individual to the group approach, it will be well to indicate, first, the sense in which the term "group action" is used. Group action, as used in this discussion, should be interpreted to mean the use of the powers of Government directly to control or modify individual action. It specifically relates to the direct use of governmental power expressed in legislative acts, either by means of subsidy or exercise of the police and taxing powers, to restrain or modify

[4] See "The New Imperative"—Walter Lippmann, Macmillan Co., 1935, p. 45.

the action of individual farmers in the production of agricultural products.

Until about three years ago, direct group action to influence or modify the production of our great agricultural staples had been either not attempted or unsuccessful. Prior to this time, State and Federal Governments did little more than carry out research and extension efforts as a means for deliberately influencing production—operating apparently on the implied assumption that the national interest as well as that of the individual farmer would be best served if each individual farmer made his own decisions as to how much he should produce.

But this policy of private initiative and individual action in agriculture has, as we have noted, two important weaknesses. It fails, in the first place, to resolve the conflict between the interests of the individual and the Nation in favor of conservation. It fails, in the second place, to resolve the conflict between the individual and group interest in favor of a production necessary for a desired income level. So long as there is no restraint upon individual action and hence no control of the effect of total output upon price, the individual producer finds it to his interest to produce as large a volume as possible since his net income varies with his volume of production.

In the past we have attempted to resolve these conflicts through education. For ten years prior to the original Agricultural Adjustment Act both federal and state research and extension agencies had engaged in intensive educational campaigns to give the farmers of the Nation a better understanding and appreciation of their economic interests and problems. It would be incorrect to say, of course, that these efforts had no effect upon individual action, but to say that they were effective in resolving the conflicts of which we speak would be equally incorrect. This is not to say, of course, that this type of education should be discontinued. On the contrary, it should be further extended and made even more intensive and pointed.

Even though subsidies are used under the present Act to induce individual action in the direction of greater conservation, the appeal through education by no means has been disregarded. In fact, it has become probably more objective and pointed than it ever has been before. By the very nature of the task, the educational work has been brought into sharper focus and greater emphasis placed upon the problem of harmonizing the individual interest with the group interest—a phase which neither the "Outlook" nor the other extension work had ever treated adequately.

The emphasis, in fact, up to the enactment of the original Agricultural Adjustment Act had been primarily from the individual point of view with but little attention given to the relation of the individual interest to the group interest. Thus, the educational work in planning and launching the programs focused attention upon the very problems that are central in the issue between individual and group action; and the programs themselves, by offering benefit payments and grants, provided the effective means for doing the job.

An alternative to group action by subsidy and education is group action through exercise of the police power. Such an approach obviously can be made only gradually and with the support and approval of an overwhelming majority of farmers and the general public, if it is to be consistent with our customary democratic processes. Our various regulatory and inspection laws, disease control measures, and the like come under this category. Other examples of a related, although not entirely similar type, are gaming laws, zoning restrictions, conservancy and wind erosion district laws and grazing association regulations. This latter type of regulation offers real opportunities for dealing with many of our submarginal land areas and worst erosion and conservation problems. But it would appear wise to proceed slowly in extending this approach to problems relating to our major agricultural lands.

Thus we may summarize at this point by saying: A policy of individual action and private initiative in agriculture has been conducive neither to conservation or best land use, nor to the maintenance of a desirable level of prices and income; that some sort of group action seems necessary; and that group action by subsidy is preferable to group action by exercise of the police power; particularly for our major agricultural lands.

III. Adequacy of Present Act for Attaining the Type of Conservation and Adjustment Program We Want

In the third and final section, I should like to consider briefly the adequacy of the present Act (which really falls in the category of group action by subsidy and education), as well as some of its economic implications and consequences in attaining the type of program we want. In such a program I shall assume our goal to be: Primarily, soil conservation and the economic use of land, and security and stability; i.e., security on the one hand against low prices and income, both in an absolute and relative sense, and security on the other hand against weather and fluctu-

ating yields as a protection for both producers and consumers. Such a program, obviously, is broader than the programs now in effect under the Act—embracing the submarginal land and stranded rural population problems as well as the problem of stabilizing supplies against both good and bad weather.

Let us consider briefly then the way in which the present Act, and the programs developed under it, meet or fail to meet the criteria of a good program that I have listed.

Do the programs under the present Act result in conservation? The answer to this question, I believe is: Yes, the present programs will achieve conservation. They did not result, to be sure, in a great deal of conservation this year, in large measure because of the widespread drought. In the non-drought areas, however, there is considerable evidence to indicate that some real conservation was attained. That even more conservation will be achieved in 1937, unless rainfall is again subnormal, is probable, because of the more rigid requirements for matching diverted acres with conserving acres, and because of the establishment of soil conserving bases and of minimum acreages of soil conserving crops, etc.

But we can hardly say that we have, as yet, the ideal or most effective type of soil conservation program. It probably could be made more effective if we could find a means for concentrating the application of funds to those areas which are most in need of soil conservation. We are moving in this direction this year by requiring prior approval of county committees before grants can be obtained for carrying out certain practices. This approach seems to offer real possibilities in the future.

More effective conservation also could be attained probably by making a more refined classification of crops, and by paying higher rates for the crops most effective from the point of view of restoring fertility or preventing erosion.

We also must be concerned about the economic use of land. It is often pointed out by critics of the program that the base-period method of adjustment tends to freeze production in an historical mold and that desirable trends, previously under way as a result of the play of economic forces, are either slowed up or prevented altogether. The programs, furthermore, it is said, have tended to discourage regional specialization, and the terms and rulings often have been so rigid as to circumscribe and regiment the producer unduly, preventing his making adjustments necessitated by constantly changing situations that he has to expect and face every day but which he cannot foresee.

Some of these criticisms are undoubtedly valid, particularly those relating to the base period problem. While no fully satisfactory solution of this problem is yet available, some progress nevertheless has been made in this direction by way of bringing about more equitable bases as between producers and by permitting rather wide flexibility in percentages of adjustment that a producer may elect. This latter development also will go far in taking care of any ordinary adjustments that a farmer may have to make during the year because of unforeseen developments. In case of major catastrophes, such as a drought, the general provisions of the program have been altered to take it into account.

The criticism that the programs have tended to discourage regional specialization is of doubtful validity. To be sure there has been some increase in corn in the South, but, as is well known, corn is a sustenance rather than a commercial crop in the South and small changes in acreages do not influence to any extent the proportion of the total income derived from the cotton crop. There has been some decentralization of production. Wheat for example has increased east of the Mississippi River—a shift whether temporary or permanent probably is not undesirable for the economy of the regions concerned. In fact it probably would be desirable if there were still further shifts in some regions of heavy concentration of certain of our crops in the interest of reducing exploitation and encouraging conservation.

Although the programs have certainly had many shortcomings, it would be rather difficult for anyone to demonstrate that they have resulted in much, if any, decrease in efficiency of production —considered either in the sense of less output per unit of input of labor and material costs from the individual point of view; or in the sense of distorting geographic distribution of production and retarding regional specialization and thus resulting in less output per unit of input of labor and other costs from the national point of view.

There also is probably not much to the charge that the programs have enabled and encouraged farmers to take their best land out of cash crops and put their poorer land into these crops. Under the rates of payment provided, it always has been the assumption that it would be to the economic interest of the individual to take his poorest land out of production first and we believe this usually has been the case.

Thus, with respect to conservation and economic use of land, I think we may conclude that we can, and do, get conservation under the present programs and that we are not decreasing effi-

ciency appreciably or unduly retarding regional shifts—that we probably are on the right track; but that we shall need to refine the Act and the programs under it in the light of experience and fuller technical knowledge as we go forward.

In discussing next the adequacy of the present Act and programs under it, for attaining security and stability, we shall need to break the discussion into its two phases—security against low prices and income, and security against weather and fluctuating yields. Of all the great risks that threaten farmers the greatest are the threat of low prices and the threat of weather.

Do the present programs under the Act give adequate protection for reasonable and fairly stable levels of farm prices and income?[5] I think the answer to this question is: No, the present programs do not give such protection. This is true for the reason that soil conservation and not production control is the primary purpose of the present Act. The by-product effect of the present programs, to be sure, is to give an appreciable degree of production control. Temporarily, adjustments needed in the interests of conservation will tend to reduce the supplies of surplus crops, since the principal soil depleting crops usually are also the crops that are likely to be produced in surplus. From the longer-time point of view, however, adjustments that are really effective in bringing about conservation will become increasingly ineffective in controlling surpluses.[6]

Under the present programs, 60 to 70 per cent only of the total money is spent for shifting acreages whose effect temporarily is in the direction of production control. The remaining 30 to 40 per cent of the money is spent for practices which very definitely are not in the direction of production control, but rather tend to produce the direct opposite effect. Obviously, if production control were the end sought, it could be achieved in larger degree if all the money were spent on diversion.

Those who argue that soil conservation should be divorced

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[5] The standard of "reasonable income" laid down under the Act is parity income. Parity income is defined as the ratio between the purchasing power of the net income per person on farms and that of the income per person not on farms that prevailed during the five year period, 1910-14.

For my particular purposes, I see no reason for discussing the merits or demerits of this particular measure of income. Although there may be some arguments as to whether the 1910-14 or some other base period should be used, I believe the general concept should be accepted. Farmers certainly are entitled to some mechanism for protecting their income interrelation to other groups and the particular standard devised to measure that relationship is important only insofar as it will result in equitable treatment of farmers as well as of other groups in our population.

[6] The adjustments needed to obtain conservation, as indicated by the State College experts in the Regional Adjustment Project and by farmers in the County Planning Project, would, in a large part, be the same as those needed to obtain parity income from the short-time point of view. From the longer-time point of view, however, after the conservation program has been in effect long enough to affect yields, the adjustments then required to obtain conservation would not be the same as those needed to obtain parity income unless demand increased proportionately in the meantime, due to growing population or an increasing standard of living or an expanding foreign market.

from all production control are correct in the sense that we should attempt in the analysis of the problem to distinguish the adjustments needed from a strictly conservation point of view, from the adjustments needed from a price and income point of view.[7] Their position is less tenable, however, when it comes to working out a practicable program that will be administratively feasible. If they would discontinue production control entirely they are confronted with the problem of how to maintain reasonable and stable levels of prices and income which are necessary to enable the individual to harmonize his own interests with those of the group. If, on the other hand, they would develop two separate acts—one for conservation and the other for production control—they are confronted with the practical difficulty of coordinating and harmonizing two separate action programs. Either program to be effective must be carried out on the individual farms of the Nation, the important question would be which program should take precedence on a particular farm and what criteria would govern?

Some of those who have studied the problem most closely believe what we need is not so much two separate Acts or programs, but rather a unified Act designed primarily for conservation but embodying a mechanism or machinery that will be more effective in controlling production than the present program; such machinery to be geared in and be an integral part of the plan for obtaining conservation. Such a mechanism probably would not be needed in full operation for any one product continuously, but it should be available for any product when the need arises. Thus, this machinery probably would need to be devised to control specific commodities, since temporary surpluses are more likely to occur in single commodities than in all farm products as a group.

With respect to the other phase of security, that is, security against weather and fluctuating yields, it is obvious that acreage control will work out only over a period of years, since it will be upset in particular years by either high or low yields.

That something more than this is needed is obvious. A long-time agricultural policy should provide safeguards against extreme surpluses and shortages of supplies. The possibility of reducing acreages following years of large yields should take care of the danger of accumulating large surpluses. But if this

[7] This, in fact, was what we were attempting to do in the Regional Adjustment and County Planning Projects carried on in cooperation with the states, and in the project on adjustments needed from the price and income points of view conducted as an internal project in the Department.

reduction is too much or is accompanied by drought, a situation is created where imports will be necessary. This points to the conclusion that such reductions must not be overdone or some provision must be made for storage, such as Secretary Wallace's ever-normal granary. The risks of farming should be further minimized by the retirement of submarginal land and by the development of an effective crop insurance plan. These are steps toward agricultural security which will be of benefit to the farmer as well as to the whole Nation.[8]

Your attention has been called already to the fact that there is no provision under the present Act for handling the submarginal land and stranded farm population problems. These problems, as you know, are being dealt with by a separate agency of the Government. But in a long-time agricultural program we should seek to develop a unified and coordinated approach both to the problems of submarginal lands and stranded farm populations as well as to the problems of the better agricultural lands.

Thus, in conclusion, it may be said that the present Act and the programs under it do not provide as yet all of the elements of a desirable program that we should like. But the existing legislation and programs, we believe, are pointed in the right direction. There probably is inherent in them possibilities for even greater flexibility and more precise adaptation to particular conditions and situations than have been attempted as yet. As we continue to acquire additional experience and knowledge of the technical and administrative problems involved, we shall be enabled to add improvements and refinements that should result more and more in giving agriculture the type of program it has sought and needed so long.

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[8] The Secretary is authorized, under the Act, to reestablish parity income to farmers at as rapid a rate as he determines to be practicable and in the general public interest. But such powers shall not be used to discourage the production of supplies of food and other fibers sufficient to maintain normal domestic human consumption as determined by him for the years 1920 to 1929 inclusive. This statement in the Act has led to a great deal of discussion, particularly with respect to whether or not the concepts of "parity income" and "parity consumption" as defined in the Act are compatible. In this connection, I should like to point out that our prospective population for the period just ahead would require the equivalent of about 305 million acres of crop land at average yields to supply them with a per capita level of consumption for food and fiber equivalent to that which prevailed in 1920-29. Without an agricultural program we probably would harvest about 365 million acres. Even if an effort were made immediately to obtain parity income, solely through reducing acreage, we apparently could harvest the product of 310 to 320 million acres at average yields. Even this acreage would still be sufficient to give our prospective population the 1920-29 per capita level of consumption and permit exports equivalent to 10 to 15 million acres which probably would be chiefly in the form of cotton. Attention also should be called to the fact that the Act specifically directs the Secretary to approach the parity level only at as rapid a rate as appears practicable and in the general public interest. It should be pointed out further that no one as yet has suggested such drastic cuts in acreage as that just indicated. In fact with a conservation program which would shift 30 to 35 million acres out of soil depleting crops into soil conserving crops in the interest of conservation, we would still obtain an agricultural production equivalent to the product of 335 to 350 million acres depending upon the amount of feed obtained from the increase in soil conserving crops. And with a production control program our acreage probably would range between 325 to 340 million acres, or only about 10 million acres under what we get under conservation. For a more extended discussion of this point of view see the recent report of the Bureau of Agricultural Economics, "Looking Ahead on Agricultural Policy."

AN APPRAISAL OF ASPECTS OF THE TRANSITION PROGRAM FOR AGRICULTURE[1]

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In any attempt at appraisal one must speak merely as an individual and out of a certain general background of philosophy, depending for acceptance of conclusions merely on the reasonableness of the propositions and the general acceptance of the points of departure. Secretary Wilson and Dr. Elliott have presented phases of this program as it looks to them from within the administration. This is an attempt to look at it from a more detached position, and possibly in terms of a somewhat different philosophy of agricultural welfare.

The federal agricultural program of the past three years has been marked by significant changes, both in the stated objectives and in the methods of procedure. It seems defensible, therefore, to speak of it as a transition program in a special sense, even though we recognize that all national programs are transitional in some degree. At the time this paper was started, around October 1, it seemed we were moving away from the sort of approach which characterized the original AAA. Moving toward a program based more largely on a national rather than a group viewpoint, one in which there would be more local determination and management, and one in which the feature of crop control and of individual crop subsidy would be less pronounced. During recent weeks there has been apparently considerable revival of the idea of control and of programs in terms of individual crops. Whether this will result in a reversal of the tendency indicated above remains to be seen. At any rate, it seems worth while to try to see more clearly what is the nature of the new program which is emerging and whether it is likely to be adequate for the needs of the years ahead.

This new program is of course not a fixed or rigid one. Those in charge have emphasized their desire to keep it flexible and alive. This flexibility is an element both of strength and weakness. If it means constant modification in response to new and better understanding of the nation's needs, in terms of fairly well defined basic goals, such flexibility will be all to the good. If, on the other hand, it results in following too closely the swings of popular sentiment in the farmer group, which is the only one

[1] Paper No. 63. The Giannini Foundation of Agricultural Economics. This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

organized for participation in the making of these policies, it is likely to be subject to many of the evils which characterized the N.R.A. The popular view of any entrepreneurial group tends to be a short-run outlook much concerned with localized problems rather than with the larger and more fundamental aspects of the situation.

Traditionally the Department of Agriculture and the agricultural colleges have sought to lead the way to new and better procedures based upon scientific studies. For the most part these were not things farmers sought consciously. Often considerable farmer resistance was encountered. This seems to raise some question as to how far we can go in following popular sentiment and still be a constructive force rather than a factor emphasizing the swings from one extreme to another. In so far as direct farmer participation in policy formation operates as an educational device it will aid materially in furthering constructive handling of the affairs of the nation. In so far as it sets up more comprehensive machinery for group dictation of national policies in terms of limited outlooks and short-run programs, it presents certain dangers which must be considered. Lincoln may have been warranted in his conclusion that the people are always right. My own feeling, however, is that they are usually right about the things they understand, and often dead wrong about things they don't understand.

Too much flexibility in such a program as this we are considering can result in failure to attain significant fundamental objectives. A group of 6,000,000 farms is a ponderous thing, difficult to change at best. Only steady pressure in given directions continued over considerable time will result in changes which can be detected ten years hence. This fury of activity designed to shunt the agriculture of the nation onto a different track may easily result in retrogression rather than progress unless it can be settled into steady continuous efforts toward well-defined goals which are not changed too frequently. The lack of such settled policies and of the patience required to move mountains has been one of the most serious weaknesses of the present administration. Unless there can be developed patience and the humility necessary to breaking the problem down into manageable tasks, unless there can be continuance on given lines long enough for effective accomplishment, many of these efforts will sooner or later go the way of the Farm Board, the N.R.A., and the Populist Party.

In these respects some of the new programs are much more settled, definite, and prospectively continuous in given directions

than others. Also in some cases necessary concessions to expediency have wisely been segregated from the fundamental long-term efforts. An excellent example of this is to be found in the commissioner's loan phase of the Farm Credit Administration.

Turning to more specific considerations, nearly all will agree that the first approach to the agricultural program by the Roosevelt administration was an emergency one. There is little need to rehash the desperate situation of thousands of farm families, the bitterness of despair, or the danger to established institutions and orderly procedure which existed at the time the measures adopted in 1933 were undertaken. The administration attacked the problem realistically and without delay, seeking first of all to clear up the wreckage and get the agricultural machine onto an even keel.

While the Agricultural Adjustment Administration was the most spectacular of the moves in this direction, it was by no means the only one and not at the time the most significant one. Immediate measures of large importance were the far-flung program of refinancing and the abandonment of the gold standard. The first of these was particularly important because of the breathing spell it afforded and the fact that it had an important nucleus of machinery and established procedure. From the standpoint of stabilizing land values and checking foreclosures, this large scale pouring in of new credit to replace sources abruptly dried up was of paramount importance.

The currency features of the program, in their agricultural significance, were in the main secondary effects of the efforts to save the banking structure. The most significant devaluation occurred when the gold standard was abandoned and the dollar was allowed to cheapen to a reasonable trading basis with the currencies of the countries then off the gold standard. Two other large-scale programs were projected into the situation, neither of them well thought out or very significant in the immediate problem. These were the ones undertaken by the Resettlement Administration and the Soil Erosion Service. Another move, less spectacular and more of regional than national significance, was the plan for orderly administration of the public domain under the Taylor Grazing Act.

None of these except the refinancing program, the Agricultural Adjustment Administration's activities, and the abandonment of gold could properly be regarded as an emergency move. The attempt to develop an emergency program in resettlement and in soil erosion has been in large measure responsible for consid-

erable fumbling, wastefulness, and confusion in these services.

I shall not attempt to discuss further the refinancing program. The revised set-up and procedure were built for quick and effective action in replacing an archaic and unconstructive financing situation which had characterized American agriculture since the beginning of commercial farming. The monetary aspects of the program likewise are outside the scope of this discussion. Fortunately the more unintelligent monetary authorizations provided in the various recovery acts, except for the silver purchases, have not been used extensively. The dollar revaluation and the extensive financing of government expenditures through credit operations, while of far-reaching importance to agriculture, constitute a broad field of discussion in themselves and cannot be considered here.

In this paper we shall look specifically at the three major programs which have been gradually crystallizing out of the legislation enacted during this administration, namely the soil conservation and domestic allotment program, the Resettlement Administration's program and the work of the Soil Conservation Service.

The present administration was the first in the post-war period to give significant recognition to the fact that America must adjust itself to a changed production and marketing situation, which has developed out of our abrupt transition from debtor to creditor status. While its efforts to check or do away with market demoralizing accumulations have been bitterly criticized by many people, it seems clear that some such drastic procedure was needed. Though other measures might have been undertaken, the horizontal acreage reduction program, as an emergency measure, seems at least as logical as any workable alternative proposed. Logical criticism of it rests mainly on its effectiveness. One may well question how much this program would have accomplished if the droughts of 1934 and 1936 had not operated in the same direction. For example, in wheat and cotton, Messrs. Davis and Richards in their Brookings Institution studies concluded that reductions attributable to the adjustment program were, for wheat in 1934, something between 7 and 10 per cent, and for cotton, in 1933, 24.4 per cent, in 1934, 28.9 per cent. It is doubtful if these changes would have been sufficient in themselves to ease materially the pressure of the large accumulations then existing. This is particularly true with respect to wheat. However, it is not with this first program that we are most concerned at present, but rather with its later modifications.

Despite the possible reemergence of the problem of heavy production and low prices the time seems now to have come when we can put aside for the most part the purely emergency aspects of the national program for agriculture, except for localized activities relating to extreme drought conditions or special and localized physical disasters and economic disturbances. Agricultural cash income has climbed back in 1935 to $7,201,000,000 and to a figure roughly estimated at around $8,000,000,000 for 1936. This is a recovery from the extreme low of $4,377,000,000 in 1932. Agricultural income is not, to be sure, on a level with that of the peak years but it is reaching well up toward the average for the 1920-30 decade despite widespread drought and crop failure, possibly even because of these factors. Not only has income increased but certain important items of expense have been substantially lowered. For example, interest on mortgage debt amounted in 1928 to $563,000,000 or 4.9 per cent of gross income. In 1932 the interest bill was $511,000,000 or 9.6 per cent of gross income, but by 1935 this item had dropped to $370,000,000 or 4.5 per cent of gross income. Total mortgage debt had fallen from $9,468,000,000 in 1928 to about $7,500,000,000 in 1935.[2] During about the same period farm taxes had fallen from an index of 239, in 1928, to one of 154 in 1934.[3] If, on the other hand, we consider the price parity criterion adopted by the Congress in 1933, it shows agricultural prices substantially at parity. It would, of course, be unwarrantable to assume that situations involving heavy accumulation and low prices may not arise again with improved production conditions.

Accepting the implications of the present program at face value and discussing it in these terms, we may regard it as a procedure designed to promote agricultural welfare, conserve national resources and stabilize industry. Looking at it in this way we may state a group of objectives on which it would seem there should not be great difference of opinion, at least among those who take a social rather than a special interest point of view. Such objectives would consist in part at least of the following points:

1. To develop a program which will check progressive deterioration in the land and timber resources of the nation and will rebuild where the social values and costs warrant such rebuilding.
2. To bring about as rapidly as practical some type of equilibrium adjustment to a changed export-import situation and to provide

[2] From data prepared by the United States Agricultural Adjustment Administration.
[3] U. S. Dept. Agr. Bur. Agr. Econ. The agricultural situation. p. 20. November, 1936.

methods for a more effective and less painful adjustment to changes of this type which may occur in the future.

3. To contribute as fully as possible to a full and well balanced agricultural and industrial production program in which the major stoppages in the flow of goods and services will be minimized.
4. To provide an efficient and constructive farm credit system associated with a general monetary program which will contribute to a stable situation in general business activity.
5. To provide a federal program of classification, acquisition, and administration of lands with a view to acquiring and administering such lands as can contribute most to the national welfare if under federal control. At the same time to cooperate with the states in constructive planning of land use in those realms which have primarily a local rather than a national significance.

This omits a number of secondary objectives such as the development of better systems of land tenure, facilitating shifts of population from areas and industries of lesser opportunity to those of greater opportunity, and the improvement of social conditions within given areas and industries. A number of these have significance from a national viewpoint but in the main they can be better dealt with through state and local activity provided the more localized agencies can be induced to undertake such programs vigorously.

Much remains still to be done in developing logical and efficient relations between national and local agencies and a suitable division of functions. There has been much tendency for the federal agencies either to absorb the energies and personnel resources of local agencies or to duplicate, often irresponsibly, many of their functions. What is needed is a serious and continued effort to find out which things can be best done nationally and which locally, and to work out divisions of functions and modifications of organization according to such findings. There should be no presumption that given problems should be left to local agencies, except as constitutional limitations force this. Neither should there be a presumption that federal action should be undertaken, except as logic and experience point to this as the most effective way to achieve results that are clearly desirable. The federal agencies have important possibilities in stimulating, aiding, and guiding local activities in many lines. For many of the problems, however, attempts to operate directly on a national basis result in wastage of funds, and in ineffective or unsuitable procedures. This is particularly true in such fields as land-use planning and resettlement of farm families. Many of the current problems are, of course, unsuited to state or local handling and

should be approached directly and vigorously through federal action.

Turning more specifically to some appraisal of the general program in terms of the objectives stated above nearly all can subscribe to the plans dealing with the first of these, that of conserving land resources, provided we are satisfied that:

(a) We know what practices will actually conserve and build up soils.
(b) The machinery for accomplishing the ends sought is efficient and well coordinated.
(c) Payments are made only to cover costs that contribute significant social values which would not arise if dependence were entirely upon private action.
(d) Future social values can be sufficiently identified, measured, and offset against present values to warrant the program.

This leaves plenty of scope for the work of the researchers for some time to come. The weakest links in the present program, so far as this objective is concerned, fall under items b, c, and d. Item b presents one of the important problems in the period just ahead. The Federal Government has at least five major agencies dealing with agricultural conservation problems; namely, the Soil Conservation Service, the Agricultural Adjustment Administration, the Forest Service, the Grazing Service, and the Reclamation Service. More adequate coordination of these both in the matter of objectives and of functions is a vital necessity. Some progress has been made along these lines, but this situation still remains one of the major inefficiencies of the Federal Government. Two of these agencies, and one other, the Resettlement Administration, under pressure to make a showing, have undoubtedly been developed faster than the problem and efficient methods of attack could be worked out, and faster than personnel could be trained and developed.

The policies which are developing represent an almost complete reversal of the country's traditional outlook with respect to agricultural lands. We are like an army in which part, perhaps most, of the units have reversed direction, while others are still traveling in the old direction. It will require good generalship and adequate time to establish a new front and appropriate functioning of the various units. Without these we may easily fall into confusion and became an easy prey to opposing forces. It would be a gross tactical error to assume that there are now no opponents of the revised program, ready and willing to capitalize on and magnify its mistakes. Soil conservation, like land planning, will be farther ahead ten years from now if it attempts to do only those things which are clearly desirable and does well

what it does do, than if it attempts measures of doubtful merit and proceeds before its machinery and personnel are adequate to the task. I am speaking here, of course, of soil conservation, not of the income transferring aspects of the program.

Is it either necessary or desirable to have two major federal agencies dealing with the conservation of soils in farming areas? It is true that an effort has been made to lay out a considered division of labor between the Soil Conservation Service and the Agricultural Adjustment Administration.[4] Commendable though this may be as a stop-gap, to assume that it will prevent duplication of effort and eventual friction between these two agencies would imply some lack of appreciation of the past difficulties of various federal agencies.

Beyond this lies the problem of working out more clearly suitable relationships to the agricultural colleges and experiment stations. These in a very real sense are a connecting link between federal and state activities in agriculture. They are supported both by federal and by state appropriations. Both political units may logically look to them for service along the lines for which they are established. It is desirable, however, that we have a clear conception of what those lines of service are as established in legislation and tradition and, if we change these functions, do so consciously and after real consideration of the logic involved. The land-grant colleges were established for research and teaching, including extension teaching. We are confronted here with a program which involves many features of operating and regulatory activity. I do not say it should not be undertaken, but if it is, it should be recognized as a major change in the functioning of the agricultural colleges and should not be slurred over or taken as a matter of course. While crowding the colleges into an operating program largely outside the generally accepted scope of their functions, has there not been some tendency at the same time to develop duplicating and often much less significant researches which could be handled better by the colleges and the research divisions of the Department of Agriculture?[5] This problem has not been prominent in the Agricultural Adjustment Administration but has been evident in some of the other newly developed agencies.[6]

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[4] See Secretary Wallace's Memorandum for employees of the Agricultural Adjustment Administration and the Soil Conservation Service. Office of the Secretary. August 4, 1936. (Mimeo.)

[5] See, for example, various discussions of these problems during recent months, among them: Tolley, H. R. The farmer, the college, the Department of Agriculture—their changing relationships. Address, Association of Land Grant Colleges and Universities. Houston, Texas, November 18, 1936.

[6] The Resettlement Administration in particular has tended to range over nearly the whole field of agricultural activity with little visible effort to develop a workable division of labor with other agencies or any adequate distinction between emergency and long-run programs. An attack

Referring now to item c, the problem of how much the benefit payments should be, raises a number of unsolved problems. If we are considering this as a soil conservation program, without regard to the effect on the distribution of income, the principle seems clear. Payment should be made for worth while expense incurred beyond the amount which the farmer would consider it profitable for him to put in, plus enough more to induce him to undertake the program. This latter inducement would probably need to be only a very small amount. An attempt to convert this principle into concrete terms does, however, present many difficulties. First is that indicated under item d, how to measure the social values involved. Does conservation mean maintenance of status quo with respect to soils, grazing cover, etc.? Shall we seek to build up in some areas while permitting deterioration in others?[7] The immediate cost of a given shift can be quite readily measured by considering relative direct expenses and adding income sacrificed through growing a different crop or none at all. The main difficulty here is in the variability of costs from farm to farm, and in considering how immediate a return must be to rate as current income. The more difficult feature lies in determining where to place the margin of worth-while and not worth-while public expenditure for further conservation activities. Here some criterion more clearly stated than at present will have to be developed. Beyond certain limits public funds will be better spent in acquiring and providing suitable administration for low value lands than in carrying out erosion control and other conservation measures on privately owned lands. Many of the areas presenting serious erosion problems can be handled more effectively and economically through public administration than through private.

The third major objective, to contribute to a full and well-balanced agricultural and industrial production program, has been discussed at some length in a paper presented before this association a year ago.[8] I shall therefore touch on it only briefly

on all fronts at once is likely to result in little gain anywhere. The Resettlement accomplishments are not impressive, considering amounts of money used. In part the difficulty has been an attempt to carry out too broad a program.

In the Soil Conservation Service program has there been a real gain from building a new organization to carry on work which might perhaps have been developed in the Bureau of Chemistry and Soils, and demonstration work which possibly could have been built up in the federal and state extension services? The fact that the AAA program as first initiated contained little definite provision for soil building may have justified some other approach to this admittedly important problem, but raises serious question as to the desirability of continuing the two organizations in their present form.

[7] This brings into the foreground in America certain viewpoints which have been a subject of considerable discussion in Germany. Liebig's philosophy that fertility should be restored in the amounts used has been sharply criticized by later writers such as Aereboe and Brinkmann.

[8] Benedict, M. R. Production control in agriculture and industry. JOURNAL OF FARM ECONOMICS, August, 1936.

and in the way of reiterating certain concepts which seem to me fundamental. These are in the main that:

1. the agricultural economy is not an isolated segment of the national economy but an intimate part of it; that an adequate national production policy will seek a balanced large production of goods and services both in industry and agriculture, not a balanced small production.
2. the effect of pouring funds into a depressed segment of the national economy for pump-priming or depression-preventing purposes depends on the timing and method and is no more and no less important in the agricultural segment than in any other group of similar size.

It would appear that sound national policy calls for vigorous steps to check major disasters to any large group before these can spread to others, rather than to have to undertake the dubious process of restarting a ponderous machine after its momentum has been lost or perhaps even its direction of movement is in reverse. If we take this view of the situation, we shall have a national policy oriented not specifically to agriculture, or to any other industry, but rather one which will seek to recognize at an early stage any large-scale stoppage of flow in purchasing power, and will seek to recognize and speed up the fundamental adjustments required. Such a plan would look not to a continuous program but to a series of emergency programs, now in this branch of economy, now in that. If possible of attainment, such an outlook would avoid in some measure at least the danger of developing a multitude of vested interests such as those which characterize the tariff situation.

A program of this kind would be separate from but not in conflict with the soil conservation activities, and should have a very flexible approach. It might involve aiding an interregional shift in production, it might mean efforts to replace a destructive tenancy or cropper system with a more desirable tenure. It might even consist in efforts to aid in readjusting land values to a new equilibrium situation. Where large numbers of unstabilized laborers tend to develop, it would contemplate efforts, in cooperation with the states, to adjust these situations.[9] For programs of this type it would seem that the procedures developing or possible under the marketing agreement section and under section 32 may be better adapted than the soil conservation provisions of the act. It seems possible that some rearrangement of the organization along these lines might well be considered. In the market-

[9] In matters of this kind it is difficult to see clearly what division of functions as between federal, state, and local units of government will be most constructive. It would seem to me, however, that as compared to recent tendencies, a policy of larger reliance on state and local units, while almost certainly slower, is likely to lead to fewer mistakes and ill-considered projects.

ing agreement and section 32 features of the program there is need for much better defining of bases of action to lessen the necessity and opportunity for purely personal decisions. The present situation opens the way both to inconsistency in treatment of different proposals and even to serious abuses or charges of abuse.

The second general objective stated, is that of bringing about an adjustment to a new equilibrium in the production and consumption of agricultural products. There does not appear to be in the present program of shifting acreages to soil improving and soil conserving crops any assurance that market supplies will be kept within amounts commensurate with prices which farmers and the Congress will regard as fair. Presumably we shall have good crop years again. The program of soil improvement is not oriented to a price objective. It assumes that the recent levels of crop production were soil exploiting. This is probably true. But as a long-time program the plan does not imply smaller production. It presumes to insure the maintenance or improvement of production—perhaps, however, on a lower level of cash-crop production. The shift in this direction should aid in holding prices of cash crops somewhat above what they would otherwise be, and very possibly will improve the balance in local consumption of agricultural products. It does, however, introduce some unknown quantities into the livestock situation. Withdrawal of marginal lands may contribute in some measure, though not largely, to developing a new balance which will not be dependent on arbitrary crop control measures. The matter cannot be met by the "ever-normal granary" idea. It is quite conceivable that we might produce year after year for considerable periods larger amounts than would sell at what would be generally considered satisfactory prices.

If this is true may it be that the ultimate solution, unpalatable though it may be, will have to look to letting agricultural prices find a new natural level, resulting from supplies produced under good conservation practices, let land prices reach a new equilibrium, and withdraw lands which prove to be submarginal under these conditions? This presumes, of course, continued efforts to reestablish a more rational trade between nations, though, like Mr. Wallace and his aids, I am not too optimistic about the success of these efforts on any large scale. Effective machinery for providing greater stability in the industry is more significant than the specific price level at which stability is established. A price situation maintained artificially at considerable variance

with the levels which would result from a more freely competitive situation constitutes in itself a serious threat to the stability of the industry since such support may be withdrawn rather suddenly if there is a considerable change in public sentiment.

If such an adjustment comes on gradually through moderate increases in productivity accompanied by increasing purchasing power of consumers, such a program may be entirely feasible and may cause no great hardship. It would operate in the main merely to prevent an undesirable speculative upswing in land prices of which there are some indications at present. If we have in the near future abundant crops and precipitous drops in prices of farm products, price-supporting measures of a more vigorous type than the soil conservation program will be demanded and undertaken. In such an event it would seem desirable to consider more extensive efforts to transfer excess supplies to undersupplied segments of our own people rather than to send them to other nations at bargain prices or to prevent their production if such curtailment is not a logical part of a constructive conservation program. Procedure along these lines has limited possibilities, but could be carried farther than it has been thus far.

In carrying out either the soil conservation benefit payment program or the crop curtailment program, more might be done to build constructive farming systems than has been done thus far. Extremely large highly industrialized units have in many cases been in a better position to obtain substantial payments than have small units where greater need existed. Such considerations apply, of course, much more significantly in income-transferring aspects of the program than in the strictly soil-conserving aspects. There has been in the early stages of the agricultural program too much tendency to think in terms of agricultural people as though they were a single homogeneous group rather than to consider effectively the various distinguishable groups within agriculture and their relative conditions and needs. The United States has one of the most destructive tenancy systems in the world. The soil conservation program, if directed consciously to that end, can do much to introduce greater stability into owner-tenant relationships and to check the rapid deterioration of tenant-operated farms.

In the resettlement program, now apparently in process of reorientation under proposed new legislation, there seems too much emphasis upon the desirability of owner-operation as an end in itself. Changes from tenancy to ownership must inevitably be slow and extremely expensive in government funds. Relatively

few families can be aided with resources probably available and ownership to many of these will be a doubtful gain when accompanied, as it usually must be, by heavier financial obligations than their resources, abilities, and general conditions warrant. After all, is not the real objective security of tenure and an opportunity to carry on a constructive, well-balanced farming venture? Might we not well give major emphasis, at least as a first step, to the development of desirable and constructive forms of farm tenancy along lines that have been long established in some of the older countries such as England? This need not, of course, preclude attempts to facilitate the attainment of ownership status especially for the younger farmers. Purchases with long-time commitments for payments will be of doubtful advantage to the older nonowning farmers provided the alternative is an opportunity to lease on a stable and constructive basis.

Attempting a brief and very inadequate summary we might say:

1. That the greatest need in the soil conservation and land use features of the program is for better organization of the machinery both federal and local, and for restriction of the activities to measures clearly demonstrated as desirable in terms of well-defined and generally accepted objectives.
2. That the parity income goal as now stated is inadequate and largely meaningless. It separates people in terms of place of residence rather than by occupation, economic status, or need. The approach in income analysis should be in national terms, with a breakdown into significant and reasonably homogeneous groups. Efforts at emergency income adjustment should be directed to any important depressed group whether agricultural or industrial with a view to preventing the spread of depression conditions.
3. The program should not be so flexible that it operates merely as a follower of short-run shifts in public opinion, and loses sight of basic national objectives.
4. There has been apparently too little recognition of the demand phases of the problem, and a relative overemphasis on adjustments through supply changes.
5. The administration has to some extent been torn between concepts of an economy based on consumer welfare and an action program based on the traditional American policy of favoring the producer. It would seem that the justifiable skepticism of classical economic doctrines which has so often been voiced in recent months is warranted but that it has not yet been fully worked out into a new economic philosophy.

Discussion by W. C. Lowdermilk

Soil Conservation Service

In opening the discussion of these well thought out papers on agricultural conservation economics, I am confronted with the great complexity of this vital problem in our national economy. There is not time to ex-

amine all the phases of the problem; it will be my purpose rather, to single out some of the major controlling factors for further consideration in our discussion.

More attention may well be given to the setting of the present program of agricultural conservation in the perspective of our national development. In reviewing the history of the occupation of the continental United States, the magnitude and trends of current forces in the present situation stand out in their relative interdependence.

Three hundred years ago a vigorous people began the occupation of the richest agricultural continent of the earth; it was a veritable "promised land" which offered to an eager people vastly greater promises than Jehovah held out to Abraham and his seed. The period of occupation has come to an end; the frontiers of new land have disappeared. Actually the era of occupation ended economically nearly a generation before it was recognized politically. From this lag has developed many of our farm problems of today, involving conservation of natural and human resources of the nation.

This period of occupation was exploitive; rapid development of the country depended in large measure on exploitation. Whatever may have been the alternatives during this period, we are confronted with a situation, not a theory. The danger is that the attitude of exploitation of this era should last too long, and put off the era of conservation too long.

We have therefore abundant reason to be gratified in the essential soundness in the thinking of an informed citizenry, and its representatives, which has made possible the initiation of an era of conservation in agriculture. A sharp turn in national policy for effective conservation was made in the passage, without a dissenting vote in either house of Congress of the Soil Conservation Act of 1935 (Public 46-74th Congress) and in the passage a year later of the Soil Conservation and Domestic Allotment Act of 1936 (Public 461-74th Congress). By these two Acts Congress establishes a policy to bring to an end the era of agricultural exploitation and to initiate an era of agricultural conservation.

The transition between these two eras in the national policy toward our agricultural resources, will cover a considerable period of time. The first great impetus to the national philosophy of conservation was given by President Theodore Roosevelt's Congress of Governors in May, 1908, on the conservation of natural resources. Doubtless the conservation acts of 1935 and 1936 are linked to the concepts generated in the national consciousness at that time. If it has taken nearly 30 years and a major depression to provide the machinery to undertake the conservation of the soil—our basic resource, we may expect it to require some time to bring about agricultural conservation. But the fact of transcendant importance is that Congress has recognized "that the wastage of soil and moisture resources on farm, grazing and forest lands resulting from soil erosion is a menace to the natural welfare, and that it is declared to be the policy of Congress to provide for the permanent control and prevention of soil erosion."

The Soil Conservation Service was authorized and established to determine by research and by field operations the character, nature and magnitude of soil wastage and to develop and put into effect in cooperation with farmers, means and measures for the control of erosion and the con-

servation of soil and water resources. Such activities involve chiefly the conservation of our land resources. As a further measure to bring about agricultural welfare, the Act of 1936 provides for the conservation of soil, promotion of economic use of land and reestablishment of parity income of farmers. These dual Acts provide for the conservation of human values as well as the basic soil resources of the land. The enactment of these two measures marks a definite turn or reversal to our national policy fostering an era of agricultural conservation. The task is tremendous; but the opportunity to undertake the task has been made.

Most of the factors involved in agricultural conservation have been enumerated and treated as more or less detail in these three papers. We may then devote our discussion principally to an evaluation of the major factors involved. I detect what seems to me an omission of a consideration of the important role of water as a resource, as well as an agent of destruction. Our land has many uses, and values to the nation. Besides the farm crops, water must be recognized as one of the most important products of our land surface. In many areas, the value of the water crop exceeds that of any other product. The demand for useable water supplies is rapidly increasing for urban and industrial uses. The utility of water supply is so profoundly affected by the condition of drainage areas, that the use of land for whatever purpose must be considered in the light of its effect on the amount and utility of water supplies. In like manner the relation of land use to flood control is now recognized as an important consideration in national policy and economy. Congress, in the Session of 1936, specifically recognized this relation in the omnibus Flood Control Act. Moreover, the effects of land use on the movement and accumulation of erosional debris as overwash on bottom or alluvial lands, in stream channels and in storage reservoirs cannot properly be ignored in national economy and in agricultural conservation.

We may use the case method in an attempt at evaluating the major factors involved in agricultural conservation. Let me cite the case of the Ben James farm—an actual farm in an important agricultural area.

A few years ago Ben James borrowed $1,000 from a Federal Land Bank on his 200 acre hill farm. The representative of the Bank had requested our project manager to undertake erosion control measures on this farm. I was called in to investigate the farm to decide on a policy in treating farms representing an extreme case such as this. On our examination we found the top soil remaining on about 10 acres. In addition to the general stripping of soil, a system of gullies down to 20 feet deep had eaten back into the gentle slopes of the farm. We agree that the current value of the farm was less than $1,000. Thereupon I asked what had become of all the material excavated out of the gullies. We followed the course of these gullies across Ben James' property line where we found the sterile rock material spread out over formerly fertile bottom lands of a neighbor's farm. The rich bottom land had been rendered sterile and unproductive. Furthermore the branch formerly yielding fine black bass from its limpid waters had become a muddy willow-bound swamp. The destruction of the Ben James farm had contributed to serious damage of adjacent farms as well.

In reply to a query as to the status of the farmer, Ben James, I was told that he was on relief.

Then to the representative of the Land Bank I said: "If you will foreclose on this farm and take it over as federal property, we will fix it up for you, but we will not make a farm out of it; as a farm, it is destroyed. Instead, we should plant the steeper slopes to trees and the gentle slopes to pasture."

A year later I found that Ben James had rented another farm; he had worn out one farm and had become a tenant on another where his incentive to soil conservation would be even less than on his own ruined farm.

Though Ben James' farm is one of the more extreme cases, it repeats what has happened on thousands of farms. The same elements are running through farms on sloping lands, for most of our agricultural production must be done on sloping lands, throughout the agricultural areas of the country. Here are some of the major factors:

First: It is apparent that every taxpaying citizen of the United States is interested in the Ben James farm, individually and as represented by Ben James himself, and his neighbor, by the community, county, state and national governments. One of the most perplexing problems now confronting us is to find a procedure which will provide for a workable sharing of necessary responsibilities to safeguard the land resources and at the same time to give play to local and individual responsibility. A solution has not yet been found; we require a thorough consideration of this point.

Second: The Ben James farm brings us face to face with the insidious nature of soil erosion apart from its confusion with lowered farm income. We must, for example, make the distinction in the deterioration of land between the depletion of restorable plant nutrients in a soil and the wastage of the soil body through soil erosion. When it is a case only of depletion of plant nutrients in extracted crops, nutrients may be restored, as justified, in the application of fertilizer and other soil improvement measures. In this instance the soil body remains intact; liberty of action in soil management is maintained wherein responses to crop demand may be met by soil management. The farming operation may then be guided by economic laws.

On the other hand the wastage of the soil body through soil erosion not only destroys the soil itself, and trenches surface topography, but carries away included plant nutrients. The loss of plant nutrients from soil erosion according to Lipman, varies from 3 to 31 times the amounts of mineral elements extracted by harvested crops.

Erosion is an irreversible process. In the end it is the controlling factor in land use. The insidious character of the process consists in this, that it soon reaches a stage where the value of the land will not justify the cost of control measures. Erosion thereupon condemns the land to abandonment or to less productive uses. Erosion does not obey the law of economics. The economic cycle rises and falls. The erosion cycle moves downward.

Besides the destruction of soil resources, erosion speeds up run-off, contributes to flooding and supplies erosional debris which damages the utility of water resources for navigation, water supply and power.

It has seemed to some that the menace of soil erosion has been overrated. However that may be, the lack of appreciation of the evil of

erosion may be ascribed to a confusion regarding the nature of the process of soil erosion, and of the cycle of soil erosion. The fact that erosion is a geologic process which is older than the first sedimentary rocks, seems to allay concern about soil erosion. There is, however, a fundamental distinction between a geologic norm of erosion and soil erosion. This distinction must be given full recognition in agricultural conservation. The distinction may be made clear by the following definitions: normal geologic erosion has sculptured landscapes, but this norm of erosion has not proceeded at rates in excess of soil formation. Despite the operation of this age old normal erosion the soil materials have accumulated and the leisure of this geologic process has permitted processes of soil formation to differentiate the material into A and B horizons. On the contrary, soil erosion refers to an induced or accelerated phase of soil removal at rates greater than soil formation—which means, in time, a sure destruction of the soil. Not until we have devised and put into practice measures of land use which will reduce soil wastage to its rate of formation will we assure sustained use of land permanent agriculture and agricultural conservation.

Third: The public and private interest join in the conservation of the soil of the Ben James farm; but the public interest resides chiefly in maintaining the integrity of the soil resource; whereas Ben James' interest includes this consideration and also centers in the current productivity of the soil. Here we may find a basis for the division of public and private responsibilities, and as well for sharing these responsibilities. If governmental agencies—local, state and federal, devise means of safeguarding the integrity of the soil resource, which is also the condition necessary to the conservation of water resources, the control of silt and to the retardation of flood flows, there will be assured to land owners a liberty of action to respond with appropriate soil management measures to demands for crop commodities. Such a provision seems the necessary basis for agricultural conservation.

Upon soil conservation as a foundation, may be built plans and programs for adjustments of production in the interest of parity incomes or for other purposes. But in the final analysis agricultural conservation must be based upon the conservation of the physical integrity of the soil resources. With his soil gone and the land trenched with gullies Ben James has lost his liberty of action; he is rendered economically helpless.

Fourth: The conflict of private and public interest of present and future interests, are also found in the Ben James farm. The conflict was less acute at the first but became more and more sharp as the wastage of the soil on this farm progressed. More and more necessary did it become for Ben James to exploit his soil to meet living expenses and interest charges. It becomes clear that the possession of a certain abundance is necessary to an individual to exercise provident foresight. For at the last a starving farmer will eat his seed grain; at the last he will destroy permanently the productivity of land.

In the case of Ben James' farm we find the question; what costs can be justified in controlling erosion? Much difference of opinion exists on this point. The value of the land affected is usually taken as a basis. But what is the value of land to a nation? The present selling price of a tract of

land is no true basis to determine the expenditure of erosion control on this farm, for example. Nor is what we can afford to do now a measure of what the nation may afford to do in the future. The Incas of Peru have demonstrated that a people may level terrace steep lands at fabulous costs to survive. Land destruction will lead us in time into an economy of survival. Fortunately we are in the possession of sufficient abundance to be provident with the remainder of our soil resources. Now, however, is the time to act. To wait too long as did Ben James, would be disastrous.

A correct evaluation of the factors inherent in this comprehensive plan of agricultural conservation is first necessary. This will clarify the sphere of the responsibilities of the several agencies concerned in the sustained productivity of the land and regulated requirements of land waters; it will call for local democratic exercise of control fostered by the major national interest, to match the individual interest in the current production of the land.

I believe it is clear that we need to provide for a continuous study of the elements of conservation to be prepared for progressive adjustments. For the present measures have not yet provided for conservation. It will be years before we will achieve this important objective. But to delay is to lose very rapidly the present advantage. It is misleading to believe, for example, that the workable and justifiable measures now applied to sloping lands will assure permanent agriculture.

We must recognize that we are not yet out of the stage of exploitation. We may have to sacrifice many thousands or perhaps millions of acres before soil conservation is achieved. It is of utmost importance that this phase be not longer delayed. For we can foresee a time when we shall localize our cultivated crop production on those acres where permanent agriculture can be assured. We shall restore the formerly cultivated slopes, stripped of top soil and cut by gullies, to forest growth and other perennial cover, in order to regulate run-off waters and to safeguard other values of the land. Agricultural Conservation will then include permanent agriculture, and the basis for enduring civilization will have been established—but not until then will this be.

Discussion by J. A. Hopkins

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Two of the speakers this evening have pointed out the need for maintaining flexibility in our economic plans and for keeping control in responsible and competent hands. Along this line we might raise the question whether *a* plan is likely to be developed for agriculture for any protracted period. The plans of 1933 were formulated in response to distress caused by low farm prices which were believed to be caused by heavy production. In 1934, we began to hear, overnight, about needs for an ever-normal granary. About a year ago, we suddenly discovered that the salvation of the farmer lay in soil conservation.

Perhaps all this shift of base is necessary, at least when there is such a close relationship between economic pressures and political reactions, but it is disquieting to those who wish for settled and orderly processes.

As with other developments in governmental administration, practice

has far out-stripped the development of any body of theoretical principles by which practices could be appraised. We act first and theorize afterwards. It seems to me that we could profitably turn our attention to the development of theories of political and economic control which would be in consonance with sound principles already developed. I wonder if this society might not profitably create a committee to give sustained thought to this problem. Some of the outstanding questions which occur to me are as follows:

How shall we safeguard the individual producer from excessive or ill-conceived planning? The maximum social as well as private welfare requires that the individual be left a wide field for choice and decision, both for maximum individual gain and for maximum social satisfaction. How and in accordance with what principles should we govern our planners? How should we or they decide where to draw the line beyond which they should *not* extend their regulations?

Sooner or later we are going to be forced to recognize the interest of the entire community in each measure of control and not merely that of the special group of producers affected. So far, the effect of our planning has been mostly to add to the strength of certain pressure groups and I am unable as yet to see anything that approaches national planning.

The tendency to adopt programs for the benefit of one group of producers at a time may soon lead us to an agricultural policy for the benefit of farmers, a labor policy for the benefit of laborers, a railroad policy for the benefit of railroad workers and owners, a banking policy for the benefit of bankers, a policy of retail trade for the benefit of store keepers, and so on, until everybody is in a straight jacket. But we would still find the strongest political groups benefiting at the expense of the unorganized and weaker ones.

This leads me to raise the question whether the "plan" which affects each industry should not be submitted to the possibility of veto by other industries or by consumers at large. Should not all the plans and programs be coordinated to the welfare of the community as a whole?

How are our political and economic plans formulated? Are they, in fact, passed upon by any body composed of persons responsible to the nation at large and, at the same time, capable of understanding what these plans imply? This brings to mind Secretary Wallace's suggestion of an economic council which might be composed of persons qualified to pass upon the feasibility of such political and economic programs and whose training and experience might enable them to anticipate probable results.

I would like to emphasize the fact that governments are political and not economic agencies. I have no thought of deprecating the ability or honesty of purpose of the members of our legislative or administrative bodies. I merely wish to point out that the agencies through which we are attempting to control our economic activity were not designed for and in many cases are ill adapted to this purpose.

Do we really have a responsible process of formulating economic policy and deciding on specific programs? It is our legislative bodies which finally have to adopt or reject such programs. They alone can be said to have any definite and clear-cut responsibility to the public at large. From the very nature of our democratic form of political organization, which

I devoutly hope we may be able to retain, our legislators and other elective officials can not be chosen from professional economists nor from other persons qualified to pass upon complex economic problems. Nor, with their other duties, can the legislators devote the time and effort required to obtain a thorough understanding of many of the important politico-economic programs which come before them.

It seems likely that political intervention in economic activity is here to stay for a good many years. I do not believe we have yet developed either the art or the science of such control to a stage where we can have great confidence in it. The present governmental machinery was certainly not designed for any such purpose. What modifications would be necessary to permit it to intervene in our economic activity in a way satisfactory to the nation as a whole? We can scarcely be said to have as yet an adequate understanding of the meaning of our programs, either in their effects on the groups directly concerned or on the remainder of our society. I think it will take a long time to modify our institutions and develop a workable body of principles. But I do think it is time we started discussing basic principles as well as the details of the present program.

THE FEDERAL LAND BANKS AND AGRICULTURAL STABILITY[1]

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I

It is my purpose in this paper to appraise the policies of the Federal Land banks as they promise to promote the stability or instability of agricultural enterprise. This does not mean that I am to play the role of forecaster; in fact, I have no such intention. My method has been, rather, to make certain assumptions about future agricultural and business conditions. On the basis of these assumed conditions I have undertaken to appraise the effect of present land bank policies (as I understand them) on agricultural stability. At the end of the paper I have drawn attention to some alternative lines of land bank policy which may point more positively toward stability than the policies which are now being followed.

II

First as to the assumptions—these are comparatively simple. It is assumed that we will have a further period of recovery which will carry indexes of industrial production and of agricultural prices and income to, or above, the 1929 level. It is further assumed that the problem of depressions in the capitalist economy is unsolved. In other words, I take for granted that there will be a time when agricultural prices will decline rapidly and industrial output and employment will be sharply curtailed. These are assumptions let me repeat; they are not predictions.

By agricultural stability I mean a minimum of fluctuation in the real income of the farm family. Or, given the prices of the goods and services purchased by the farm family, stability consists in a constant money income after production expenses, interest and taxes. This definition means, *pari passu,* that agriculture is free from wide fluctuations in real estate values, widespread tax delinquency, epidemic mortgage foreclosure and the like.

I have chosen to measure land bank policies by their contribution to stability simply because it is for agricultural stability

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.
This paper is in a series of journal articles based on a study of the Farm Credit Administration which is being conducted under the auspices of the Harvard Committee on Research in the Social Sciences. See *American Economic Review,* June, 1936.

that land bank policy is important. No doubt, were they polled, many American farmers would vote for a high average level of earnings even if they had to risk an occasional slump in those earnings. But there does not seem to be much that the land banks can do to affect the level of farm earnings over a period of years. On the other hand they can do a great deal that affects the stability or instability of agricultural enterprise over the course of the business cycle. It is by their deeds that they shall be known.

As an unstabilizing factor, clashes between fluctuating farm income and fixed charges on the farm capital structure are of first importance. It is by minimizing or intensifying this clash that the land banks affect stability. During a recovery period, stability demands that the increase in capital charges be held down; or, more specifically, that the increase in land values and in the per acre mortgage debt be restrained so far as possible.[2] At the same time there must be every encouragement to mortgage repayment. If these policies are successfully followed agriculture will enter the ensuing depression period with a reduced mortgage debt to be supported from the reduced earnings. Ownership tenure will be protected by the increased equity which farm owners have in their property. The depreciation in the value of the farmers' property (a matter of some psychological importance) will presumably be less than if the preceding increase in value was greater.

The most important steps toward stability of agricultural income during depression are those which are taken during the preceding recovery period. However, stability may also be promoted during depression by the reduction of mortgage charges; by refinancing; by prevention of foreclosures; and by withholding foreclosed property from the farm real estate market. By these standards let us see how present land bank policies measure up—first of all during a period of recovery.

III

The promise of present land bank policies is definitely mixed, it seems to me, as we look ahead to a recovery period. The banks have certain policies which give every promise of promoting agricultural stability; these in turn would appear to be offset, or par-

[2] I assume that increases in mortgage debt per acre and increases in land value per acre are closely correlated. This is a relationship which would appear to be a necessary consequence of the function of the mortgage as an instrument for financing the transfer of land. Studies of trends in land values and mortgages per acre provide empirical verification of this correlation. *Cf.* Murray, W. G., "An Economic Analysis of Farm Mortgages in Story County, Iowa, 1854-1931. *Iowa Research Bulletin* 156, 1931.

tially offset, by policies or circumstances which promise to be decidedly unfavorable to stability.

The first essential of a stabilizing loan policy during recovery is frugality. Among those who are in the market to buy farm land, and to finance the purchase by mortgage, we might distinguish two groups. There are, first of all, those who are seeking to change their tenure or to increase their holdings; those whose primary interest is in the operating return from the farm property. In the second place there are those who, although they may plan active operation, are primarily stimulated to buy by the prospect of an increase in land values. Both groups support the demand side of the real estate market; through both groups easy land bank funds may feed a rising real estate market. The task of the land banks during recovery is to distinguish between these two groups and discriminate against those who buy land expecting a rising market. If the banks do not discriminate they defeat their avowed goal of making it easier for the landless to buy land, for they require would-be owners to pay more for their property. But the land banks must do more than this. They must also discriminate among the would-be owners so that only the fit are permitted to enter the land market with land bank funds. The incompetent and impecunious who have land bank loans play the same part in bidding up land values as the "good risks" who have substantial savings of their own to margin their purchases.

These are fine distinctions; much finer than the land banks can hope to draw with precision at the present time. But to my mind the best safeguard against land bank funds getting into the wrong hands during recovery is to keep high, and to increase, the equity demanded of every borrower as recovery proceeds. This automatically eliminates the buyer who has not sufficient money of his own to safely risk farm ownership. It may not eliminate the speculative or semi-speculative buyers, but at least it forces them to use sizeable amounts of their own funds. At the same time the responsible buyer with funds of his own benefits from the lessened competition for land and the lower prices of farms.

Since 1933 the land banks have settled upon a policy of limiting loans to a fixed proportion of the so-called normal agricultural value of the land. Normal value, as distinguished from current value, may be very roughly defined as capitalized income at prewar prices.[3] In common with many others, I see no reason for assuming that 1909-14 prices are a mean tide of American price

[3] Subject to some adjustments.

fluctuations; or that average prices over any period are likely to be equal to the pre-war level. But this is unimportant. The thing of importance is that the land banks have adopted a policy which in times of rising prices and earnings should lead to increasingly frugal lending in relation to going farm income and land values. This is to be compared with the usual policy of lending on the basis of current land values. These current values can be, in some part, the result of the loans which are based on them.

Needless to say there are many unsolved problems connected with the policy of loaning against a fixed price or income base. The problem of when and how to change the base is a difficult one. Pressure from farmers and politicians will be against adhering to such a policy in good times. Appraisers in their appraisals may be influenced to a considerable extent by current or going sales value.[4] These are not problems of principle, however, and I think that the fixed base loan policy is a marked step in the direction of stability.

Set against the fixed base loaning policy of the F.C.A. are a number of other innovations which I appraise as contributing to instability during a recovery period. First among these innovations are the Commissioner's loans. I mention them first because they too bear upon the frugality of the loaning policy during a recovery period.

While the fixed base loaning policy, if effective, will reduce the amount that can be borrowed on mortgage relative to current earnings and land values, the Commissioner's loans have served to increase the amount loanable from fifty to seventy-five per cent of the appraised value of the land. Thus, no matter how rigidly the land banks may keep down the appraised value, the borrower, who is eligible, has the opportunity of increasing the amount of his loan with a commissioner's second mortgage. In other words, while the fixed base loaning policy makes it impossible for him to borrow fifty per cent of a liberal valuation, the Commissioner's loans make it possible for him to borrow seventy-five per cent of a more conservative valuation.

In the total of mortgage credit operations of the F.C.A., Commissioner's loans are almost as important as land bank loans. During 1935, loans of the Commissioner amounted to 44 per cent of all mortgage loans, and during the first eight months of 1936

[4] This is a matter of considerable practical importance and at some time in the not-distant future the F.C.A. may find it necessary to formulate some method of safe-guarding against the influence of sales value on appraisers "normal" valuations. One possibility is that the land banks abandon the attempt to appraise the "value" of farm property—this appraisal serves no essential function at the present time. The chief task of the appraiser then would be to estimate the income from the farm property at base period prices and costs. The maximum size of the mortgage would be set by the carrying charges which could be met out of income.

they were 41 per cent of all loans. The great bulk of both Commissioner's and land bank loans was used for refinancing purposes even as late as the present year. While there has been a sharp increase in the proportion of land bank and Commissioner's loans used for land purchase, there has been no significant trend as yet in the total volume of loans for land purchase. However, even though demonstration rests with the future, Commissioner's loans may be recorded as a likely offset to any restriction of loans brought about by the fixed base loaning policy.

Frugal lending is but one of the requirements of a loaning policy which promotes stability during recovery. Stability also requires, as I have suggested that there be a demand for heavy repayment on the principal of outstanding mortgages. The repayments would appear to have two things to commend them. In the first place they have the direct and obvious effect of decreasing the mortgage and increasing the owner's equity in the property. The increased equity and the reduced carrying charges both increase the borrower's security during the ensuing depression period. In the second place (and I advance this not as a matter of established fact but as a reasonable theoretical proposition) heavy repayment demands by a larger lender such as F.C.A. should have the effect of drying up funds which would otherwise be invested in farm property. Some borrowers can be kept out of the land market directly by a policy which siphons away their surplus funds. But the "drying up" process may also be important if it keeps out of the local commercial bank the surplus funds of borrowers generally; this even though the vast majority of these borrowers have no intention of buying more land. In other words it is possible that the stiff repayment requirements will tighten the local money markets, and make local mortgage financing less easy.

Under present policies and circumstances the prospects for heavy repayment demands during recovery are not bright. In the first place the amortization plan itself is a serious handicap. The assumption that a fixed total instalment should be paid each year (i.e. the standard plan) or that a fixed amount should be paid on the principal each year (i.e. the Springfield plan) is clearly at cross purposes with the goal of stability as here defined. The difficulty, in fact, is that the amortization plan itself assumes a stability of farm income. When farm income is unstable the amortization plan then acts to increase the instability of net income.[5]

[5] *Cf.* Galbraith, J. K. and R. M. Macy, Farm Mortgage Repayment Policies: A Study of Existing Plans and Possible Alternatives to be published in a forthcoming number of this JOURNAL.

But there is a yet more serious weakness in the land bank's position on repayment. Regular amortization repayments on land bank loans have been deferred until July 1938. On all Commissioner's loans, borrowers can defer principal payments for an initial period of three years. If we enter a period of favorable earnings, the land banks must content themselves with voluntary repayments of land bank loans. Payments will become due on the 1934 Commissioner's loans next year. However, most of these loans are written for such a short term that the amortization payments (rather than being too low) may be burdensomely high. In consequence, there will doubtless be pressure for further deferment of payments.

During the 'twenties, in several parts of the country, there was considerable competition among private agencies and individuals to place mortgage loans. Emphasis on repayment was slight or nil. The present repayment policy of F.C.A., which is at least to encourage voluntary repayment, is an improvement, no doubt, over the situation existing ten years ago. Nonetheless, present land bank repayment policy promises to make little positive contribution to stability; some precedents have been set for lines of policy in the direction of instability.

There remains the question of the interest rate during recovery. The best policy on this, from the point of view of stability, is not readily apparent. Ideally the rate of interest on new loans should rise during recovery; if it does not the demand for more and larger land bank loans will be increased; to adhere to the policy of frugal lending will be difficult. But to increase interest rates during good times is to increase carrying charges and consequently instability in bad times. Moreover, such increases are not likely to be very popular; they may serve only to turn prospective borrowers to private sources of mortgage funds.

The best compromise, quite possibly, is a contract rate during recovery which approximates the rate being charged by private lenders. Or conceivably this rate should be enough below the competitive rate to reflect some of the economies, and to compensate for some of the inconveniences, of the land banks. It would be accepted policy to reduce interest charges below the contract rate in periods of depression.

At present the land banks are loaning, as required by statute, at one per cent over the bond rate. This loaning rate (at the moment 4 per cent) has been reduced by Congress until July 1937 to 3½ per cent. On Commissioner's loans the maximum rate is fixed by statute at 5 per cent, and this is the rate at which Commissioner's loans are now being made.

Measured by its contribution to stability the present interest rate situation has a number of important shortcomings. In the first place the bond rate which controls the interest rate is essentially the tax free borrowing rate on government bonds. The government guarantee of land bank bonds is a moral rather than a legal one; but it is nonetheless binding for this reason. Even should government bond rates stiffen as recovery continues, there is no reason for supposing that it will be by the amount necessary to serve the ends of a stable loaning policy. The loan rate of the land banks, as determined by existing statutes, may be far too attractive as recovery proceeds.

More serious is the possibility that Congress will refuse to relinquish its present control over the rate on land bank loans. If it does not relinquish its control, then the rate is likely to remain low; political expediency will never be on the side of an increase. If farm earnings are at a favorable level for a few years, and the land banks continue to loan at 3½ per cent, one is tempted, indeed, to forecast a heavy demand for loans from would-be land buyers. If their demands are met the result will be an increase in land values and in mortgage debt. The numerous sins of private mortgage agencies in pre-depression years did not include the granting of excessively low rates of interest. On this one matter at least, it might be argued that the private agencies were a less serious threat to agricultural stability than is F.C.A. at the present time.

IV

Let us turn now to appraise the land banks from the point of view of stability during depression. In most part, I have already covered this part of my topic; I have considered stability during recovery as a matter of building defences for the subsequent depression. However, looking ahead to the next depression, the land banks have a further accomplishment to their credit which we may well pause to consider. The farm mortgage debt of the United States has been brought into manageable form.

The most important part of this process of getting the mortgage situation under control, has been the sheer growth of the land bank system itself. Available data on total mortgage debt have serious shortcomings, but it would appear that at the end of 1929 the land banks held only about 13 per cent of the total mortgage debt of the country.[6] Between individual states and

[6] Thirteenth Annual Report of the Federal Farm Loan Board. (House Document 555, 71st Congress 3d Session.) The Farm Debt Problem. (House Document 9, 73d Congress 1st Session.)

regions there was, of course, considerable variation in the holdings. At the end of 1934 the proportion of the mortgage debt of the country as a whole held by the land banks and the Commissioner had increased to 32 per cent; and assuming that there was no increase in the total mortgage debt during 1935, the land banks held about 37 per cent of the total debt at the beginning of the present year.

Thus a substantial fraction of the total mortgage debt of the country has been brought under one central control. For the debt so controlled the next depression will not bring an anarchy of foreclosures, rigged auction sales, threatened judges, state moratoria, and debt adjustment committees. The land banks will be in a position to stop repayments, lower interest rates, and extend payments. These steps can be taken quickly and efficiently.

But the contribution of the land banks to depression stability extends beyond the mortgage debt which they themselves own. If private lenders again find themselves too deeply involved in the farm mortgage field, and farmers again find themselves too deeply involved with private lenders, the land banks now have the size and experience to move quickly through a scaling down and refinancing program. There is even a reserve of trained or partly trained appraisers scattered over the country. I doubt if hard-pressed debtors will ever again be instructed to telegraph their troubles to the White House.

V

To summarize at this point, during a recovery period I believe it could be argued that land bank policy is a source of instability rather than stability. However the impulse to instability is doubtless less strong than under the pre-depression regime of private lenders and lending. During depressions, I think we can safely conclude, the contribution of the land banks is strongly on the side of stability. The last problem I raise is this: what changes in present policies might make the banks a positive stabilizing influence, particularly during recovery?

It is worthwhile drawing attention, I believe, to one possible change of a fundamental sort. I suggest that the land banks, having brought the mortgage debt of the country into manageable form, might now undertake to manage it. Let me enlarge on this.

At the present time most of us think of the land banks as a service agency. This view, I presume, prevails in Congress although some Congressmen, no doubt, still think of the land bank system as a form of subsidy to the farmer. The Farm Credit

Administration has stated its own view of its functions many times. It too regards the land banks as a service institution—the service that of borrowing in the long term capital market and reloaning to farmers. It believes that operations should be self-sustaining within the interest margin permitted by law.[7]

But it is possible to think of the banks less as a service agency than as the custodians of the nation's farm mortgage debt problem; the banks might accept, as their primary responsibility, the trusteeship of the farm mortgage debt, in the interests of agricultural stability. This management or stabilization responsibility would apply to mortgage debt held by private agencies.

I can perhaps best make clear the change in land bank policy to which I am drawing attention by reference to a similar change in Federal Reserve policy within recent years. In the beginning the responsibilities of the Federal Reserve banks were service responsibilities. These included such things as the holding of reserves, the provision of rediscount facilities, and the provision of currency. It was expected that performance of these services would add to banking stability; and the Reserve banks were expected to make some positive contribution to stability through open market operations and manipulation of rediscount rate. But the overwhelming emphasis was on the service aspects of the system. The Reserve banks were expected to be self-sustaining in their performance of these services, and care was taken that excessive dividends did not accrue to the banker-stockholders.

At the present time, while the Reserve System still provides its service, it is these service functions which have become secondary. The major task of the System has become that of promoting financial and general economic stability. Students of central banking no longer concern themselves with par collection or promotion of a bill market. Those who appeared at the hearings on the Banking Act of 1935 did not address their remarks to desirable or undesirable changes in Federal Reserve services. Present interest is in the mechanisms and policies by which the System undertakes to smooth out fluctuations in the economy.

It is unwise, no doubt, when considering land bank policy to draw too heavily on the experience of the Federal Reserve System. To do so is to risk the subtle temptation and hidden dangers of all analogies. Nonetheless, the Land Banks have the possibility of assuming a position in relation to the mortgage debt

[7] "The function of the permanent system is to provide farmers and farmer's organizations with credit suited to their particular needs at interest rates adjusted to the cost of obtaining loans in investment markets and of making them available to farmers on a business basis," *Second Annual Report of the Farm Credit Administration*, 1934, p. 6.

similar to that of the Reserve Banks in relation to the supply and control of commercial credit. In its own sphere, it seems to me, centralized management of the farm mortgage debt could be as important as the central bank controls which we now take for granted. From the 'twenties we have experience to show that private mortgage lending is affected with a public interest comparable in kind, and perhaps in degree, with the public interest in the operations of the commercial banks.

VI

If the land banks should accept this trusteeship of the farm mortgage debt, some important changes in existing policies would doubtless follow. An enlarged mandate from Congress would also be needed. Such policies as those of frugal lending and heavy repayment demands during recovery would assume a new importance. These policies might be fortified by control of competitive private lending at such time. The curtailment of land bank loans during prosperity will naturally lose much of its force if private agencies take up the slack. Perhaps the land banks might also undertake to control the foreclosure policies of private lending agencies. Again the record of the farm mortgage company during the 'twenties revealed a need for supervision; such supervision might well have benefited both borrowers and investors.

Another sort of control is suggested by the land banks' holdings of farm properties; the banks are, perhaps, our most important single owner of farm land. In their disposal policy there may be some opportunity for stabilization of the farm real estate market. In some of the southern states, at least, it would appear that an undue increase in land values could be checked by liberal offerings of land bank farms. The banks have already adopted the policy of withholding farms when sale would demoralize an already weak market.

Management or trusteeship of the mortgage debt problem might well prove incompatible with the policy of making the operation of the land banks self-sustaining under borrower control. This is an ideal toward which, I take it, the banks are now striving. I am not sure, however, that the abandonment of this objective is a serious matter. Borrower control of the land banks, even when the borrowers owned virtually all of the stock, was a matter of theory rather than of fact. Nor would it seem likely, to judge from the experience of our large "quasi public" corporations, that control by borrowers *is* possible where stock is widely held. I fail to see how the individual land bank borrower can ever have

a more significant voice in the policies of F.C.A. than has the individual common stockholder in the affairs of the Telephone company. To abandon the ideal of borrower control of the land banks is not to admit the defeat of present policies; it is merely to admit that there is no Holy Grail.

I am not sure that there is a serious conflict between the ideal of self-sustaining operation and the goal of mortgage management in the interest of agricultural stability. Still if there is a conflict between earnings and broad considerations of agricultural stability much could be said for making stability a prior consideration. The F.C.A. is reluctant, I believe, to depend on a continuing federal subsidy. No doubt the Reserve banks feel the same way. Yet the Reserve banks will risk such dependency, if within coming months, they use their government bond portfolios to mop up excess reserves. Few of us would argue that the Federal Reserve should keep its bonds to avoid a subsidy. There is the risk, of course, that Congress may subsidize the land banks too well; that mortgage credit may become a most disastrous sort of farm benefit payment. But if Congress is intent upon mortgage subsidy it has the power to give such a subsidy whatever the financial autonomy of the land bank system.

VII

At the beginning of this paper I tried to make clear that I had no intention of predicting the future of the Federal Land Bank system. I might now add I likewise have no intention of recommending to the land banks a future course of action. It remains for others to decide whether the very real progress of recent years has been sufficiently consolidated so that such further steps are now strategic and practical. And no doubt there are lines of action, alternative to those which I have suggested, which would serve the agricultural stability equally well. I do hope, however, that we will recognize stability (or some such manifestation of agricultural well-being), and nothing less, as the ultimate goal of land bank operations.

Discussion by F. F. Hill

Farm Credit Administration

If I interpret Mr. Galbraith's point of view correctly, it may be summarized about as follows:

From organization in 1917 to at least as late as 1933, the Federal Land banks functioned primarily as a service agency for agriculture borrowing funds at wholesale, adding the customary middleman's margin, and retailing the funds to individual

farmers in the form of long-term amortized loans. While the service performed by way of enabling farmers to reach the money markets of the country and borrow on terms suited to their needs in competition with business and industry represented a contribution to the well-being of agriculture and while perhaps it represented the most that the banks could hope to accomplish during a period when they held a relatively small percentage of the farm mortgage debt, there is now, if I interpret Mr. Galbraith correctly, a possibility of the banks rendering a much broader and more fundamental service to agriculture. Mr. Galbraith would measure the effectiveness of Federal Land bank policies by their contribution to agricultural stability, which he defines as "a minimum of fluctuation in the real income of the farm family. Or, to express it differently, given the prices of the goods and services purchased by the farm family, stability consists in a constant money income after production expenses, interest and taxes. This definition means, pari passu, that agriculture is free from extreme fluctuations in real estate values, widespread tax delinquency, mortgage foreclosures, disruption of tenure and the like."

The following policies are suggested for consideration by the Federal Land banks as a possible means of bringing about a greater degree of agricultural stability:

1. Frugal lending during recovery periods.
2. Low interest rates during periods of depression with increased interest rates during recovery periods.
3. A repayment plan providing for heavy principal payments during years of agricultural prosperity and relatively small payments or perhaps no payments at all during depression periods.
4. A land sales policy which would provide for withholding from the market during depression periods real estate acquired through foreclosure and the sale of such real estate during recovery periods, particularly at such times as a possible boom in real estate appears imminent.

In addition, Mr. Galbraith suggests that the Farm Credit Administration might well be given power to police private lending agencies particularly with reference to foreclosure policies with perhaps some control over lending policies as well. His suggestions in this direction are not very definite, however.

I should like to consider Mr. Galbraith's suggestions from three points of view:

1. Changes in the powers, form of organization and methods of operation of the federal land bank system that would appear to be necessary or at least that are likely to be made if the suggested policies are put into effect.
2. Operating difficulties likely to be encountered by the reconstructed organization in putting such policies into effect.
3. The possibility of bringing about a greater degree of agricultural stability, as defined by Mr. Galbraith, through adoption of the measures he suggests.

Needless to say, time will permit of only a brief discussion of the more important considerations involved. Many important problems can only be mentioned in passing.

If the Federal Land banks are to follow the policies suggested by Mr. Galbraith, we are, in my opinion, clearly headed in the direction of a Government-owned and -operated farm mortgage credit system. While there is no reason why we should not establish such a system if it will

best serve the needs of our national economy, it is important, I think, to recognize at the outset that the suggested measures lead in that direction. Time will not permit of a detailed statement much less an analysis of my reasons for believing that a Government-owned and -operated farm mortgage credit system would result from an attempt on the part of the Federal Land banks to carry out the policies suggested by Mr. Galbraith. I shall merely try to indicate, with brief comment, a few such reasons.

If the loan rate of the banks is to be adjusted upward or downward without regard to the cost of loan funds, there will be no opportunity for the banks to even partially hedge through lending at a fixed margin above the cost of borrowed funds. It seems to me that in the circumstances one of two courses might be followed:

1. Borrow short-term funds and make long-term loans, at least in recovery periods and normal times, at a rate which would allow the banks a substantial margin from which to build reserves so that they would be in a position to reduce interest rates charged borrowers during depression periods.
2. Or provide, on a permanent basis, for interest subsidies during depression periods.

If the first course is to be followed, the present ratio of bonds to capital, in my opinion, will have to be materially reduced. Under such a program, all bonds would mature during a relatively short period during which period principal maturities on loans would be considerably less than the amount required to retire such bonds, even under the present fixed installment plan which Mr. Galbraith suggests we abandon. Conservative investors have a habit of shying away from such a type of operation. To attract them, the ratio of bonds to capital would have to be reduced. If the banks are to maintain their present volume of business, this means that more capital would be required. Presumably, the Government would be called upon to furnish it. If the Government, as a permanent policy, is to own the greater part of the capital stock in the system, it would appear only reasonable that it exercise a high degree of control. Furthermore, since less than one-tenth of the farmers of the country are Federal Land bank borrowers and since such agricultural stability as could be attained under the suggested program would benefit all farmers, the question may well be raised as to why, under such a theory of operation, Federal Land bank borrowers should be required to purchase any capital stock at all.

If the ratio of bonds to capital is not substantially reduced, provision would have to be made on a permanent basis for interest subsidies during depression periods. With a continuing interest subsidy, we would have to expect, I should think, continuing Government control. In addition, there would be the difficulty, which we face at the present time, of discontinuing the subsidy once the depression is past.

I am also of the opinion that if loans were made on a repayment plan under which mortgages were drawn to provide for variable principal payments, a fundamental change in the capital structure of the Federal Land bank system or some form of Government guarantee of land bank obligations would be necessary since it is extremely doubtful whether a mortgage of this type would provide a form of collateral security for

Federal Land bank bonds sufficiently attractive so that investors would buy them, on the basis of the present ratio of bonds to capital, at prices that would enable the banks to operate in competition with other lenders. A conservative first mortgage loan providing for regular installments of a size which the borrower can reasonably be expected to meet from current income which installment covers interest and gradually amortizes the loan, thereby increasing the borrower's equity from year to year, provides a form of investment which is commonly considered as conservative and is, therefore, favorably looked upon by investors of the type who buy Federal Land bank bonds.

There is a further important consideration in connection with the suggestion for variable principal payments. Such a repayment plan would call for a type of operation much more costly than under the present system. A one per cent operating margin would not be sufficient to cover the costs. While such a scheme, which in essential respects is like the old crop payment plan on which thousands of acres of land have been sold in this country, is well adapted to conditions where the mortgagee is a resident of the community and is in a position to know intimately the facts concerning crop yields and prices received for farm products as well as the capabilities and peculiarities of the individual mortgagor, it is not adapted, in my opinion, to a large scale operation by a distant corporation which depends primarily for loan funds on the sale of bonds to the investing public, which expects to maintain a reasonably high ratio of bonds to capital and which attempts to operate on a narrow margin.

The suggested policy of withholding real estate acquired through foreclosure from the market during periods of depression and selling it during boom periods appears to overlook the fact that it costs money both in actual cash outlay and in excessive depreciation to carry real estate for extended periods of time and that leasing farms to tenants by nonresident corporate owners has not proved particularly satisfactory except in a few cash crop areas. It is estimated that institutional lenders hold in excess of a billion dollars worth of real estate at the present time. I have not had time even to make a guess as to the annual carrying charge on this amount of property but it would represent a substantial figure. A question might well be raised in passing as to why Federal Land bank borrowers, who represent a relatively small percentage of the total number of farmers in the country, should be required to assume the burden of stabilizing real estate values for the benefit of agriculture generally. It would appear that if this type of operation is to be undertaken, it should be done by some form of Government agency.

If I am correct in concluding that the type of organization that would be developed to carry out the policies suggested by Mr. Galbraith would be some form of government-owned and -operated farm mortgage credit system, such a system would encounter, in my opinion, a number of practical operating difficulties. We must recognize, I think, that it would be difficult, perhaps impossible, for a government-owned lending agency to raise interest rates out of line with going money rates; to establish, for example, a 5½ or 6 per cent loan rate at the present time when the Treasury is currently borrowing long-term funds at 2½ per cent.

I think there might also possibly be some difficulty in enforcing collection by a government lending agency of a substantial principal payment

at the end of a favorable crop season, especially if the favorable season followed a series of poor crops so that the farmer had an accumulation of other obligations to meet as well as a lower standard of family living to bring back to par, buildings to repair, tiles to replace, impaired soil fertility to build back and other similar worthwhile uses for his money. Once a definite repayment schedule or at least a fixed relationship between crop yields, crop prices, sales and repayments is abandoned, we are operating on a basis where each case must be handled individually and where each decision is subject to argument and perhaps proof as to the facts involved in the event foreclosure is started. Need I say more from the standpoint of operating costs?

There would also be some difficulty, in my opinion, in attempting to withhold real estate from the market during the early stages of a recovery movement prior to the time the real estate market might be said to have reached the boom stage at which time, under the policy suggested, it would be offered for sale. We would, in effect, be in a position where the government would be withholding large blocks of farm property for a price substantially above current market values and most certainly under circumstances where it could be demonstrated that the operation was being conducted at a loss. Even if one assumed that such a program were desirable, I think they would be forced, in the light of the experience we have had in connection with other so-called stabilization operations undertaken by governmental agencies, to doubt its feasibility.

Mr. Galbraith suggests the possibility of some form of policing private lenders although he is not very definite as to what should be done or how far we should go. I am not sure that some of the evils which might develop under such a system, particularly in the form of evasions from such regulations as were laid down, would not prove to be an important offsetting factor to whatever gains resulted from bringing about greater stability.

Assume the legal powers and financial structure of the Federal Land bank system to be so changed as to enable the banks to carry out (1) a policy of frugal lending during recovery periods; (2) a policy of adjusting interest rates and principal payments with a view to controlling the flow of loan funds into the farm mortgage field and of equalizing the real income of farmer-borrowers; and (3) a policy of withholding acquired real estate from the market during depression periods, selling it during the following recovery period. Would such policies, even if supplemented by a certain amount of supervision of the operations of private lenders, take us far enough in the direction of stabilizing the real income of the farmers of the country to justify the abandonment of the present structure, present policies, and present objectives of the Federal Land bank system?

To me, it appears doubtful. There are approximately 6,812,000 farms in the United States. Of these, 3,210,000 are operated by full owners of which number upwards of 2,000,000 have no mortgage debt. Of the approximately 1,210,000 owner-operated farms which are mortgaged, it may be assumed that the Federal Land banks and the Land Bank Commissioner combined hold mortgages on something less than 500,000. Since the measures suggested by Mr. Galbraith presumably would have no material

direct effect in stabilizing the real incomes of the 3,600,000 tenants, part-owners (some effect here) and farm managers of the country, it would appear that so far as direct influence is concerned, such policies, if adopted by the Federal Land banks, would directly affect less than 10 per cent of the farmers of the country.

Let us examine the problem from another angle. The farm mortgage debt of the United States is estimated to be in the neighborhood of $7,500,000,000. Assuming the average interest rate on the mortgage debt to be 5½ per cent (it is probably somewhere between 5½ and 6 per cent) the annual interest charge would be $412,500,000. Assuming the Farm Credit Administration were given the power to raise or lower the interest rate on the total debt by as much as 2 per cent, the maximum decrease or increase in the annual interest bill, which it would be within their power to make, would be an amount equal to 4 per cent of the mortgage debt or approximately $300,000,000. While this is a considerable sum of money, even in these days when millions are talked of as though they were hundreds, it is less than 4 per cent of the estimated gross income of agriculture for 1935. From 1932 to 1935, the gross income of agriculture rose by $3,171,000,000 or by over 10 times the maximum adjustment which could be made in the annual farm mortgage interest bill of the country under the foregoing assumptions. Since, as a matter of fact, the Federal Land banks and the Land Bank Commissioner combined hold less than 40 per cent of the farm mortgage debt of the United States and since it appears doubtful whether a law could be passed permitting the Farm Credit Administration to exercise control over the interest rates charged by private lenders or permitting the Federal Land banks or the Land Bank Commissioner to raise interest rates to any such level as 7½ per cent, the net direct effect on the real incomes of farmers would be substantially less than indicated by the foregoing figures.

Further questions may well be raised. Could the Federal Land banks by a frugal lending policy and a variable interest rate prevent or even hold down speculation in land values during a recovery period? Certainly not unless they had authority to force private lenders to adopt similar policies. Otherwise, all that would happen would be that during recovery periods private lenders would do the bulk of the farm loan business obtaining, incidentally, all of the more desirable types of loans—the kind that go to make up the backlog of business that keeps the doors of any mortgage loan institution open. Under a frugal lending, high-rate policy, the banks would get the high-cost, high-risk business.

How far would it be necessary to go in the direction of controlling private lenders to curb a land boom? It must be kept in mind that at the present time between 40 and 45 per cent of all mortgages (even a greater percentage in normal times) are held by private individuals. Is it practical to attempt to police this group? Would we go so far, for example, as to attempt to control the interest rate and terms of a land sales contract between two individuals when little or no cash changes hands at the time of sale—in other words, when the credit extended amounts to 90 or 100 per cent of the sales price? Preliminary studies indicate a substantial number of transfers of farms on which the Federal Land banks have loans. The owner's equity is all that has to be financed by the purchaser in con-

nection with such transactions. If 50 per cent loans were made during a depression period at a low interest rate, say 3½ per cent, the purchaser could pay 6½ per cent on the remaining 50 per cent of the purchase price and still have an average interest charge of only 5 per cent. Can we, and if we can, shall we prevent free right of transfer under such circumstances? If we do not, how shall we control the situation?

What would be the effect on private sources of farm mortgage credit of adopting a program that would call for a substantial amount of dictation as to lending policies by a governmental or semi-governmental agency. Would it result in an even greater concentration of the farm mortgage debt of the country in the hands of a single agency, the Farm Credit Administration? If this should occur, would it be looked upon as a favorable development?

To what extent is the purchase of farms by persons not intending to operate them personally, financed by the Federal Land banks, and to what extent are they financed by substantial cash payments representing the savings of doctors, lawyers, businessmen and others, the seller taking back a purchase money mortgage for the balance?

How effective would a variable interest rate be as a means of controlling land speculation? During the year ended March 1, 1936 the index of farm real estate values as reported by the U. S. Department of Agriculture increased in Iowa by 9 per cent. If there is a prospect of another 9 per cent rise during 1937, how far would an increase of 2 per cent in the loan rate of the Federal Land banks go toward curbing it?

What effect would a policy of withholding from the market during depression periods real estate acquired by the Federal Land banks and of selling such real estate during recovery periods have in preventing a land boom? Suppose the Federal Land banks held the approximate $78,000,000 of real estate which they owned as of September 30, 1936 from the market until a speculative boom appears imminent. With other corporate lenders holding upwards of $1,000,000,000 of real estate most of which they are ready to sell when they can find a satisfactory buyer, how effective would such a course of action be?

These are all questions which can merely be raised in a short paper. To my mind, however, the answers are such as to make it extremely doubtful whether the measures suggested by Mr. Galbraith would be effective in bringing about a greater degree of stability in the real income of the farmers of the United States, an objective which all of us, I take it, would agree to be a highly desirable one. It seems to me that the problem involved is fundamentally a price problem and that the most a long-term farm mortgage lending institution can hope to do is to mitigate to a small degree the effects of the fundamental cause—a fluctuating price level. In 1914, the gross farm income of the country was estimated at $7,028,000,000. By 1919, it had more than doubled standing at nearly $17,000,000,000. In 1921, it dropped to $8,927,000,000 or about one-half the 1919 level. During the period from 1923 to 1929, it fluctuated in the neighborhood of $11,000,000,000 and then started down reaching an all time low for the period for which figures are available of $5,337,000,000 in 1932. As long as such wide fluctuations occur in gross farm income, I am rather pessimistic about a farm mortgage lending institution doing much

more than absorbing the shocks of depression in a small way and perhaps by example and education doing a little in the way of smoothing out the curves of rising and falling land values. I seriously question, however, whether it is possible by adopting the policies suggested by Mr. Galbraith to do enough in the way of bringing about a greater degree of stability in the real income of the farmers of the country to justify the hazards which I see or think I see in abandoning the present objectives of the Federal Land bank system.

FARM MORTGAGE INVESTMENTS OF INSURANCE COMPANIES[1]

S. F. Westbrook
Aetna Life Insurance Company

I have been asked to speak to you on the general topic of agricultural long term credit and private institutional investors. It will speedily be evident to you that I am neither a banker, a lawyer, an economist, an agriculturalist, an accountant, a sociologist, or a philosopher. I am sure that it would be helpful and far more entertaining to you all were I able to approach this topic from one or another of those points of view. I find myself in the somewhat unhappy position of a business man who has had thrust upon him quite suddenly the task of conserving a substantial investment in agricultural loans with the resulting necessity of conducting in a not unimportant way an enterprise of farming.

I do not need to apologize to you for admitting myself a business man. I perhaps am unduly complimenting myself by assuming that I am qualified for that title. It recently has been more than inferred that relatively few people are so qualified. I am at least one of those who have attempted to fill that role. It will be helpful to me, and perhaps to you, in presenting the reasons why I have some of the ideas I do have, if I analyze briefly my conception of the role which a so-called business man should fill, and perhaps it would not be amiss should I show the temerity of advancing a few criticisms which might justly be made of the manner in which business men have been filling their role.

We hear much of the attribute of judgment which business men are supposed to show in reaching the momentous decisions of which they are so prone to boast. The attribute of judgment may possibly be a Heaven sent gift; a power which is granted to the few and which cannot be developed at will. Many who have implicit faith in their own powers of judgment believe that judges are born and not made. It is my conviction, however, that the quality of one's judgment can be developed in somewhat the same way as will power and a taste for ripe olives—first, by cultivating, if one does not already have it, an attitude of humility, and then by approaching one's problems in the spirit of temperance, tolerance, justice, balance, propriety, tact, sympathy, and other commendable virtues.

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[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

Judgment as applied by a business man should be synonymous with all of those attributes, but the modern day problems with which business men are customarily faced, particularly in enterprises of great size, call for aids in his attempts at determining exactly what temperance or justice, etc. really are. The ideal business man should be so equipped that he can sit in the judgment seat and weigh these different qualifications from many different points of view. First, perhaps, the economic point of view, but inextricably interwoven with that economic point of view is the social and the political. In order that he may have both fact and theory to guide him, he must have at his disposal expert advisers. Citing my own case as an example, one attempting to administer the business of agricultural long-term credit or of agricultural enterprise itself, must have at his elbow men or women who can contribute to his thought from the point of view of the banker, the lawyer the economist, the agriculturalist, the accountant, the sociologist, or the philosopher.

Perhaps it has been one of our major mistakes that we have tended to view our duties too exclusively from the point of view of the economist. I make that statement without intending to disparage in any way whatever the professional economist, into whose thought has crept increasingly a broader aspect than that of the purely expedient profit inspiration. I use the term in the present connection as it has been used for such a long time in a pioneer, exploitative economy where untouched lands were to be opened up and worked, wherein virgin forests and mines and wells were to be explored and exploited, and wherein debts for these purposes were to be created and to be paid, and wherein men were to grow rich.

The story is an old one and a familiar one. It has been told many times. We have been warned repeatedly that the fertility of our soil was being depleted, that our lands were washing away, that our forests were being destroyed, and that our mines and our wells were about to become exhausted. Generally speaking, all those warnings were merited, but I am enough of an optimist to believe that the warning, important as it is, is no more than the positive sign that our pioneer economy has been and is maturing and that we are coming to believe that enterprise pursued under the profit system must have a longer range vision in point of time than that which characterized our immediate forebears, and that we who are charged with these grave responsibilities in respect to this most basic of all of our industries must cease from looking at these problems exclusively through the eyes of any

one of the professions which contribute to the administration of these affairs.

It would be an endless task, and I am sure would be most distasteful to you, should I attempt to trace the course of thought toward agriculture as reflected by these various professions which I have mentioned, but I do think that it would be well to call your attention briefly to the kind of thought which in the past has come from the three main categories into which it is our habit to divide society—economics, politics and sociology.

Speaking primarily of the credit side of the agricultural industry, I am sure that the attitude of institutional mortgagees in the past has been too exclusively economic in its outlook, and again let me repeat, the exploitative economy of the past and not the kind of economy which we hope for in the future. As an example of what I mean, let me point out that my own company started in the business of making loans secured by agricultural lands during the days before the Civil War when the Illinois Central Railroad was being built. My company took its place, and its proper place and in a proper way, in the exploitative economy which was opening up the country in those days. The pioneer farmers had been trickling in for many years. Enterprising pioneer promoters, aided substantially by an enterprising pioneer government, had built its first railroad and these enterprising financiers of whom I speak, allured, as had been the farmers and the promoters, by large returns, invested substantial sums of money on what they believed to be adequate security and at most substantial interest rates. The money was dear, but it was worth all that was paid. There was no scientific attempt at evaluating land. There was no conceivable method by which a real value could be placed upon it. Arbitrary figures were used. No one knew how much produce the land would raise. There were no efficient means of getting it to market and there had not been effected a market technique which assured a ready sale of the produce once it had been raised and transported. It was all pioneering in the strictest sense of the term.

During the succeeding sixty years under the pressure of expanding birth rates, unrestricted immigration and constantly increasing foreign and domestic markets, land prices rose without serious interruption. It was quite characteristic of those days that the first settler, after having fenced his farm and after having produced his first crops, sold his land at relatively high prices to the new comers, while the first settler himself moved on to

conquer new country, to fence new farms and again to raise first crops. There was always a market for land and with a growing population crowding onto the land, higher prices were inevitable, and with these higher prices came higher loans and greater eagerness on the part of more people and more institutions to make those loans.

Coincident with this developing exploitative economy came larger and larger accumulations of savings in the cities and among the industrialists with a consequent growing necessity for the investment of those savings in sound enterprises. The pace became greatly accelerated as the century came to a close and proceeded further to unbelievable heights during the War days.

With the history of many years of successful investment behind them, the belief became incontrovertible among lenders that money invested in farm loans was absolutely safe. As we look back on it now, however, it is easy to see that that safety resulted, not from anything inherent in agricultural loans, but from the fact that the price of land, due to many circumstances and many combinations of circumstances, increased year after year without serious interruption so that unsafe loans made in one year speedily became safe and sound through the mere passage of time and events.

I do not need to remind you of what was happening coincident with all of this to the producing plant, that is, to the soil itself: I do not need to remind you either of the more recent marked changes in our population trends, both from a falling birth rate and a restricted immigration, nor is it necessary to point out the basic changes which have occurred in national economies all over the world. It is enough to say that American agriculture, which had been approaching naturally and gradually a mature economy, received a stimulus during an important phase of that approach from the artificial conditions created by the War and that when the War ended we were dropped abruptly from the apex of the long cycle. Our agriculture grew old over night. But agricultural business men had not learned to look at their industry in any way other than through the eyes of the pioneer, exploitative economist.

The same sequence of events, ranging from pioneer days to the present, can be shown to have colored highly our politics, and for those politicians to whom agriculture was important, there seemed no better way to serve their constituents than to provide

them with the opportunity for quick and ready profits in quite the same way that the economist regulated business and credit affairs.

Until quite recently, the sociologist has been a still, small voice. His attitude has been considered quite emotional. It has been alleged that he has exerted his efforts through his heart rather than through his head. Indeed, in a pioneer civilization there is little apparent need, let alone opportunity, for the professional sociologist. Good neighbors usually fill that role.

But in our maturing civilization there has come unquestionably the necessity for combining in our thinking and in our plans, in a cohesive way, these three great philosophical divisions. And if through the use of advisory services which are now everywhere available, business men cannot form judgments which are far-seeing and inclusive of all of the attributes which I have repeated before, then they have failed signally in their mission.

It is very easy to repeat high-sounding theories and principles. It is quite another thing to translate them into terms of every day business enterprise. Were I capable of it, I might with more propriety follow along certain prescribed paths for discussion. I perhaps should discuss learnedly the theory of long-term and short-term credit, but inasmuch as I am not at all certain myself what the theory of credit is, I must refrain from laying myself open to the criticism which from you would be so authoritative. I believe, however, that if I were to restrict myself, as I must, to one line of discussion, I could do no better than to tell you as simply as I can my conception of my own job.

I have been charged with the responsibility of lending dollars which belong to someone else to another group of people who need or who can use those dollars with profit to themselves. Please bear with me for a moment while I impersonate the life insurance interests. The people who own those dollars are, in number, nearly sixty million individuals. They are, generally speaking, people of exceedingly modest means. They have been turning over to me for a great many years an important part of their yearly incomes. They are depending upon me to turn over to them, or to their designated beneficiaries, a certain substantial sum of money when definite, preconceived conditions shall have come about. Those conditions are generally intimately concerned with the ultimate condition of death and the designated beneficiaries are most frequently widows and children. In order that my contracts with these people may be carried out in an orderly fashion, I must take this money which they have en-

trusted to my care and invest it in safe, productive enterprises. It has seemed logical and intelligent that the most important enterprises in which I might invest these funds should be those which help in the development of our country. I have tried to do that by loaning the money in the present aggregate amount of more than twenty billions of dollars to the builders of our railroads, to the makers of our farms, to those who provide electricity, gas, water and other public services, to those who dwell in the cities for their homes, and in many instances to governments, town, county, state and national, in order that they may provide for their citizens the facilities which they require.

The interest which this money must earn is important and to a marked extent will enable me to discharge my obligations to the sixty millions. Should that source of income from interest fail or become seriously impaired, my ability to discharge those obligations would in a corresponding way become impaired.

My own particular job has to do primarily with the lending of these dollars to farmers, to men and women whose chief or sole livelihood comes from the tilling of the soil and the selling of their produce. Inasmuch as I expect that interest shall be paid for the use of this money, and inasmuch as I expect that eventually over a term of years that money will be repaid by the person to whom I have loaned it, the fact seems obvious that the only means by which the man who has borrowed the money can pay this interest or principal is from cash which has resulted from the sale of produce raised on his farm.

Again impersonating the life insurance interests, I have loaned over the years several billions of dollars to the farmers on those conditions, expressed or implied. But with my background of a pioneer economy, I either have not been able, or I have not taken the trouble, to inquire into the ability of these various farmers to raise and to sell their produce for dollars in amounts sufficient to enable them to pay this interest and eventually the principal. I have depended upon the so-called unearned increment of the land, the constantly increasing prices which the successive waves of migration have paid for that land. I have depended upon a faith, which at last turned out to have been a misplaced faith, that this land always would go up in price and that it was literally impossible to make a poor farm loan.

I believe I am maturing. I believe that I can no longer depend on the arrival of some new customer who will justify existing or still higher prices. I find that if I am to invest the money of these sixty million people safely, I must determine, first, the

likelihood of the borrower's ability to pay his current obligations and eventually his debt out of income. If I fail at reaching sound conclusions in this regard, I have no right to be responsible for the safe handling of these funds.

Even assuming, however, that I can reach these conclusions, and the subject will be discussed at greater and more intelligent length elsewhere on your program, the successful issue of those theories or formulae does not, unfortunately, depend on me alone. Savings are still mounting at an incredible rate, perhaps at a rate never before reached in our history. Those savings are still seeking places for investment and competition for investments is more and more acute. It would be a questionable accomplishment were I, as an individual for an individual company, to arrive at a sound conclusion to find that by following the dictates of that conclusion, I had succeeded only in rendering unlikely the investment of my funds, for unless all major lenders are actuated somewhat at the same time by the same principles, it is idle to hope for material accomplishments.

There are many elements which enter into this situation. The making of an appraisal, and it is of appraisals that I am speaking primarily, crosses the paths of every one of the elements which I have heretofore mentioned, and let me mention them once again—the banker, the lawyer, the economist, the agriculturist, the accountant, the sociologist, or the philosopher.

The banker must advise me as to the potential supply of credit, not only the local supply, but the national and international as well. He must advise me as to trends in interest rates, and in other financing, both private and governmental.

The lawyer must advise me as to state and national laws governing not only the credit factors, but other factors such as tax laws, land and mortgage laws, corporation laws, etc.

The economist naturally occupies a most prominent position and his functions merge with those of the agriculturalist and the accountant. They should supply me with data and advice covering not only such technical matters as climate, soils and cropping programs and hazards, but data pertaining to the purely income and outgo factors, the ability and willingness of regions and of the individuals in those regions, to make money and to pay their debts.

The sociologist has a most important place in the picture. It should be obvious that good soil and a favoring climate and equitable laws cannot in themselves assure profitable production with-

out efficient man power. We have been prone to believe that efficient man power will naturally gravitate toward those sections where other conditions are favorable. It generally happens that way, but a dispassionate consideration of many sections of our country will disclose that in spite of favoring natural conditions, the man power has been allowed to deteriorate physically and mentally, and that probably one of the major causes for unfavorable all-around results has been that energy sapping diseases and illiteracy have been allowed to become prevalent. As a business man I must give serious thought to any plan which will tend to remedy that defect.

In the end I must be advised, assuming that I am not capable of it myself, in the coordinating of all these factors into an intelligent whole. Perhaps I do not need the philosopher so much as I need the psychologist or the psychiatrist.

Perfection in all of these respects would, I believe, produce the kind of appraisal which we need so desperately, the kind of appraisal which in the end would give me, as a trustee of these funds, assurances that over a period of years a certain piece of land in a certain locality could be expected to produce from the sale of produce raised on that land a certain number of dollars, which in turn would enable me to lend the average operator which that community would be the most likely to afford a definite sum of money with a reasonable expectation that he could pay interest on it and eventually pay back the debt.

It is my conviction that this appraisal factor with all of the attributes included which I have mentioned is by far the most important part of this whole human and business relationship. Granted the correctness of the theory, the perfecting of a broad system along these lines is far from chimerical. The business men who have been running this long-term credit enterprise for so many years never have availed themselves comprehensively or comprehendingly of the invaluable services of the Land Grant Colleges, the Department of Agriculture, and others too numerous to mention, which are at their disposal and which we have used greedily for many years. Is it too visionary to suggest that eventually we may have a national central depository for land appraisals with an analytical service department and library attached thereto?

After having been enabled to determine logically the amount of money which should be loaned, I should then give serious thought to the terms which should regulate the transaction. A

consideration of those factors entails consultation again with all of the elements with whom I should consult in the matter of appraisals.

I do not need to tell you that the methods of expediency which were followed in the pioneer, exploitative days have become outmoded. The first element to give way to a maturing economy was the matter of interest rates. I believe that in the early years of agricultural long-term investment 10 and 12 and even 15% interest was not uncommon, but as agriculture became more and more stable, and as lands increased in value and as savings increased in volume, these rates declined rapidly until toward the end of the nineteenth century farmers in the best areas were borrowing their money at rates of interest lower than most long-term borrowers and as low as the lowest.

I am reluctant to quote a law which through long abuse has ceased to be a law in the sense in which it was originally used, but when I point out that interest rates fell because of the operation of the law of supply and demand, I quote that law of supply and demand in its original sense. Until quite recently, credit and the cost thereof has depended upon a free flow of that credit. Mistakenly or otherwise, money flowed into agriculture, particularly on long-term credits, because in the opinion of the creditor agriculture was worthy of that supply and of the rates that resulted.

The original operations of the Federal Land banks, starting as they did shortly before 1920, carried out to a degree, but not wholly so, this natural flow. Federal Land bank bonds sought the market and paid the going rate. Investors were given free choice as to whether they preferred a land bank bond at 4 or 4½%, or a loan direct at 5 or 5½%. The tax exempt feature can to a degree be justified, although that feature complicates the logic. As a representative of an institutional mortgagee, as a policyholder in a life insurance company, or as an individual citizen, however, I cannot view with equanimity the more recent governmental subsidy to these competing lending institutions. I fear that it is tending to perpetuate pioneer, exploitative politics. If these semi-governmental agencies can return to their former basis and not only sell their bonds in a free and open market, as they have already started to do, and discharge the entire cost of their operation including the risk element from the spread between interest received and interest paid, then there can be no reasonable complaint.

The next development in the terms of lending and borrowing,

is a change, led and inspired by the Federal Land banks, from the former five-year loan to the long-term or fully amortized type of loan. There can be no doubt as to the iniquities of the short-term type. However, the five-year loan unquestionably has its place and we find today in furnishing farmers with a wide choice of terms that they frequently choose the five-year variety. The matter of choice is in itself a large factor in our attempt to solve this problem and there is a conscientious desire on the part of institutional lenders to offer that range of choice.

Beyond these two elements of interest rate and term of years, there are many other factors, most of them in an experimental stage, but which are worthy of exhaustive exploration. We believe that we sensed during the years of deepest depression that one of the major causes for discouragement among good farmers with valuable farms was the uncertainty engendered by a strict and arbitrary exaction of annual dollar payments against the principal of their loans. It was no more than human that these men should feel in times of stress, when it seemed inevitable that those times would continue interminably, that they should refrain from devoting any of their scanty, hard-earned surpluses to the discharge of a debt owing to what they sensed a large, wealthy, distant and unfriendly corporation with the likelihood that shortly after making this definite sacrifice, that corporation would step in and dispossess them of their property which they were trying so valiantly to protect.

I am not unmindful of the fact that there always are a few people, in farming as well as in commercial and industrial pursuits, who with malice aforethought plan their affairs so that they receive a maximum of income with a minimum of outgo; but I am convinced that the great majority of people, commercial and industrial people as well as agricultural, want to pay their debts, are willing to undergo drastic sacrifices in order to accomplish that, and that they show reluctance only when they are uncertain of the real intentions of their creditor. Therefore, we have attempted to give our borrowers another range of choice.

Our loans all require payments on the principal. Those requirements are in two forms—(1) a certain stipulated number of dollars per year, (2) a payment regulated by the average price at which the principal cash commodity of the area is selling on certain market days of the year in one or another of the principal terminal markets. It is too early to pass any judgment whatever on the practicability of that plan. The choice of the farmers as shown by their selection so far of one plan or the other, is that

two thirds still prefer, if it is a real preference, the stipulated number of dollars, while the other one third prefers the index plan.

This process of trial and error is an example, I believe, of the peculiar value of the private institution. Such an institution can relatively easily conduct judicious experiments, make them permanent when they have demonstrated their worth and their soundness, or discard them easily when the contrary has been shown to be true.

There is a well established theory in credit circles, which I believe is a heritage from our pioneer exploitative stage, which says in effect that the relationship between debtor and creditor should be in no sense a partnership relation—that money is loaned on terms which must be met by the borrower and that it is no business of the creditor directly or by inference to aid or advise in, or influence the methods by which the borrower secures the funds with which he discharges his current and capital obligations. There has entered my mind more than a doubt as to the validity of this belief. I hold that our borrowers in the great majority of cases can pay their debts only from income from the operations of their farm. I have pointed out that I believe my responsibility is to find out before I make a loan, what income in dollars over the years I may reasonably expect from that farm. That opinion as to income must be founded on an estimate of actual and potential production. I must strive diligently to assure policyholders that conditions affecting production do not change, at least for the worse, during the life of that loan.

One of the major causes for the widespread failure among farmers has been the departure by the farmer, under presure, from sound programs. Some farmers, probably the majority, continue to operate their land in hard times in the good husband-like manner which their rearing and experience as farmers make inevitable. They simply cannot farm in any other way. Some of these farmers have been in the hands of arbitrary creditors and when they were no longer able to meet their debt requirements, but nevertheless continued farming in a good husband-like way, they forthwith lost their farms. Their creditors simply did not understand.

Another group of farmers wished sincerely to continue their good husband-like methods, but, finding that they could not continue their debt services and at the same time remain good farmers, they proceeded to pay their current indebtedness and perhaps small principal payments as well by selling their capital

assets. They temporarily increased their cash income by pursuing unwise methods, but thereby they sadly reduced the fertility of their soil. They allowed their improvements and equipment to deteriorate, to the ultimate disadvantage of the creditor, who, after a protracted period of unsatisfactory economic conditions, found that he had to take the land after all and he took it in a relatively low state of productivity.

Another group of farmers for one or another of many different reasons decided to extract from their properties all of the cash possible, to keep the creditor as happy as possible for as long a time as possible, and then to pass over the property at the end.

My conviction is that a mature economic philosophy will dictate that every possible measure be taken to assure both debtor and creditor that the condition of the property securing the debt be kept up at least to the state of productivity which existed at the time the original appraisal was made. In an attempt to accomplish just that, we have insisted in all of our contracts with borrowers, with tenants and with purchasers, that we as creditors have the right to step in and terminate our contracts should it become evident that the land and buildings are being cared for in a manner dangerous to our mutual interests.

This again is purely an experimental plan. It may not work. There have been frequent instances where that provision in our contracts has lost us a loan, a tenant, or a purchaser. It is quite conceivable that unless other major lenders adopt a similar attitude, we will again be in the position of having a sound plan, but one which effectively prevents our making any loans or selling or renting any farms. That may be partnership, but if it is, I am quite prepared to become a partner on that basis. I look on it wholly as an effort at more conservative lending, using the word "conservative" in its generic sense.

In spite of what I have said in regard to the relationship between borrower and lender and my willingness to assume this partnership relation, if it is such, I at the time believe that there is a definite dividing line between the commercial creditor and the commercial borrower. When I appraise a piece of property and estimate the probable ability of the borrower to pay interest and principal, I depend primarily on that property and on the kind of management which I logically can expect as typical of that community. I feel that it will confuse the issue and dilute my own effectiveness should I bring into the picture collateral guaranteeing elements such as other farmers in the neighbor-

hood who may be attracted by a cooperative effort. From the borrower's point of view, I can conceive of no attractions.

There are other elements in this business of lending other people's money which are worthy of serious consideration, but time does not permit a discussion of them. It is difficult to crystallize in words the transitory times through which we are going now. All times are transitory and that is the reason why it is so difficult to see clearly. In my contacts with many diverse minds and with people who have been trying conscientiously to think this problem through from many different points of view, I have arrived at the point of crystallization where I believe that the most reactionary element has been holding to three main conclusions in the belief that they are incontrovertible and that the most liberal element has been advocating three opposed conclusions in the hope that they may become orthodox.

First—A study of United States history, and world history as well, shows that our way of regulating things economically has directed major efforts to the advantage of the producer—as an instance of that, our tariffs, our trade associations, our labor unions, corporate law itself, triple A, with the great body of national and state governmental services devised for their well being. That is commonly called power politics. As opposed to that, present day thought is stressing more and more the position of the consumer and plans are being devised for furthering his advantage. That is commonly called welfare politics.

It is my belief that the two in respect to a domestic economy are not entirely incompatible, although when the opposing theories are put on an international basis, my belief is not so secure. I invite your attention to the fact that the power nations of the world include Germany, Italy and Japan; that the welfare nations include, among others, England, France, the Scandinavian countries and the United States.

In the second place, the reactionary element sets great store by the old law of the survival of the fittest. It believes with great conviction that the world owes nobody a living, that the Lord looks out for those who look out for themselves, and that the devil takes the hindmost. Perhaps it is no more than human that those who are in no immediate danger of not surviving should feel that way and so long as I personally am sure that I am going to survive, I can easily subscribe to that doctrine. On the other hand, the more liberal group believes not only that the world owes everyone a living, but that it owes everyone a standard of living considerably higher than the world has afforded the av-

erage so far. Perhaps the two are not entirely incompatible. We at least have reached the stage where there are very few even among the most reactionary who will permit anyone to starve.

In the third place, the reactionary group believes that debts are made to be paid when they are due. They have not always practiced this themselves, but as a matter of pure theory, that is their regulating maxim. The more liberal group believes that debts probably should be paid, but that due regard should be given to ability to pay both in point of time and amount. The two theories are not entirely incompatible.

There are energy sapping philosophies as well as energy sapping diseases and it must be our care in considering the second and third conclusions which I have quoted and discussed so glibly and so superficially, that we do not allow a philosophy to maintain that destroys self-dependence and self-respect. If some superior omnipotence will agree to support me in somewhat the same style to which I have been accustomed, and if that power will assure me, often enough, that it is a quite respectable course of action not to pay my debts, I do not trust my own ability to resist that temptation.

Therefore, I present to you as one who would like to be a business man in accordance with the definition which I have given you, the proposition that my job is one of weighing these many perplexing and contradictory factors, of debating them with experts, of pleading with those experts to compose their views with other experts so that we may have in our maturer nation a balance.

We have learned much and we have progressed far, but as Bismarck said of the German nation, "We have harnessed slowly; we must drive rapidly." There are many reasons why we have harnessed slowly. Machiavelli many centuries ago ascribed reasons for that slowness when he said "A two-fold reason may be assigned why we cannot change our opinions and sentiments so frequently as the times vary: first, because we cannot easily oppose ourselves to what we have been accustomed to desire; secondly, that having repeatedly been prosperous in one way, we cannot easily persuade ourselves that we shall be equally so in another."

In the position of general arbiter of all mundane affairs to which I have appointed myself, I direct my appeal to both the extreme reactionaries and the extreme liberals, for I feel deeply that if our cherished institutions of democracy are to be maintained (and that is the real issue), the thoughts of those who

take seriously their status as citizens of the nation must continue moving; the one in the direction in which they have already started, the other to a meeting place short of their desires. It is imperative that there be substituted for a pioneer, exploitative policy of strife exclusively for the attainment of power, prestige and profits, not a policy of energy-sapping, initiative-destroying benevolence, but a policy of brutal self-examination designed, first, to study and, more important, to admit our failures, and then, as an act of enlightened self-interest, to provide remedies for those failures even though that might entail a compromise with established creeds.

IMPORTANT ISSUES IN FUTURE FARM CREDIT ADMINISTRATION POLICY[1]

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Three years ago today it was my privilege to bring to this group the program of the then newly-organized Farm Credit Administration. I began with something of an apology for presenting a paper-program of work rather than a digest of accomplishments. But since we were a new organization we could say very little about what we had done and only point out what we intended to do.

The newly created Farm Credit Administration was given two major tasks in the Spring of 1933. One was the emergency job of stopping wholesale foreclosures through refinancing the debts of farmers on a basis that would permit them to pay out as conditions improved. The second task was that of attempting to build, on a permanent basis, a complete coordinated credit system for agriculture.

High Points of Progress

In a period of about three and a half years the Farm Credit Administration has received applications from approximately one half of all the farmers in the country who have mortgages on their farms. About 800,000 farm mortgage loans have been made for more than $2,100,000,000. Today the Federal Land banks and Land Bank Commissioner hold nearly 40 per cent of the farm mortgage debt of the country compared with approximately 12 per cent of the total debt held by the Federal Land banks in 1933. This tremendous refinancing program which has given hundreds of thousands of farmers a new opportunity to work their way out, has resulted in little if any increase in the mortgage debt. Approximately nine tenths of the money loaned on farm mortgages was used to pay off old debts. Obligations of thousands of farmers with excessive debts have been scaled down. The interest burden in relation to farm prices has been reduced to the lowest point on record; foreclosures have been cut in half; and farm real estate values over the past three years have been increasing for the first time since 1920.

The annual mortgage interest payments of the more than 800,000 borrowers through the Farm Credit Administration have been sharply reduced. The saving for the calendar year 1936 is

[1] This paper was read at the Twenty-seventh Annnual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

over $70,000,000. About half of this saving is permanent, effected through refinancing at lower interest rates.

The indirect benefit to farmers other than those borrowing through the Farm Credit Administration is equally important. The total farm mortgage interest bill, which was estimated at more than $550,000,000 in 1929, dropped to $370,000,000 in 1935, a decrease of over $180,000,000. While a part of this decrease came about, unfortunately, through decreasing the mortgage debt as a result of foreclosure, nevertheless there has been a substantial saving resulting from voluntary reductions in the interest rates and refinancing through sources other than the Farm Credit Administration.

In the worst year of the depression, nearly 10 per cent of the gross farm income of the country was used to pay mortgage interest, and that, of course, does not tell the whole story because only a little over one third of American farms are mortgaged. Ten per cent of all the farm income was going to pay mortgage interest on one third of the farms. Today it takes only about 4½ per cent of the gross farm income to pay mortgage interest. This relation is as favorable or more favorable than it was before the depression. At present, the bushels of corn or wheat or bales of cotton needed by a farmer for interest on his Federal Land bank mortgage are only about one fourth of the 1932 figure and about one half as much as before the World War.

Carrying forward from the farm mortgage financing of the Federal Land banks into the field of short-term farm credit, the Farm Credit Administration has organized a nationwide cooperative production credit system which has loaned over $500,000,000 to farmers and stockmen in all parts of the United States. The 550-odd production credit associations have brought the benefits of low-cost cash financing of crops and livestock within the reach of large numbers of farmers previously dependent on costly store credit and time-purchases; and provided cooperative production credit on a sound and attractive basis.

In addition, the Farm Credit Administration has placed in operation for the first time a system of banks for cooperatives designed to serve exclusively farmers' cooperative marketing, purchasing and service associations which, as you know, are more numerous in the United States than in any other country in the world. Through a Central Bank for Cooperatives in Washington and 12 district banks, over $200,000,000 has been loaned and today over 1,400 cooperative associations are obtaining credit service through these institutions.

As in the field of farm mortgage credit so in the field of production credit and credit for farmers' cooperative associations, the institutions under the supervision of the Farm Credit Administration have brought about a prompt adjustment of interest rates paid by farmers and their cooperative associations to the generally lower level of interest rates that has prevailed in the money markets of the country since the Spring of 1935.

Through the expansion of the Federal Land banks and the establishment of the production credit associations and the banks for cooperatives, the principles of cooperative credit have been extended to all branches of agricultural financing. Through these permanent cooperative institutions and supplemental emergency facilities, the Farm Credit Administration has loaned a total of more than $4,000,000,000. The emergency refinancing of foreclosure-threatened farmers and other temporary emergency work assigned the Farm Credit Administration is now practically completed. The great bulk of the current financing is being handled through the cooperative agencies organized for permanency. Consequently, the problems I wish to consider in somewhat more detail have to do with the future policies of these permanent organizations.

The long-range objective of the Farm Credit Administration is to establish, on cooperative principles, a complete coordinated credit system for agriculture, operated on a business basis, farmer-owned and -controlled, and designed to meet at all times and at the lowest possible cost the sound credit requirements of the farming industry on repayment terms suited to its needs. Stated another way, the credit system we are seeking to establish may be thought of as a farmer-owned cooperative service organization whose function it is to borrow funds, through the sale of bonds and debentures, for such periods of time as may be required by the farming industry; and to make loans to individual farmers and farmers' cooperative associations with a basis for credit on terms best suited to their needs at interest rates representing the cost of borrowed funds plus a margin to cover the cost of operation and necessary reserves.

Before attempting to appraise the programs made to date toward the objective stated above, it might be well to analyze the objectives. Is a cooperative farm credit system operated on a business basis in the best long-time interest of agriculture and, from a more practical viewpoint, is it possible to get back to a nonsubsidized basis now that farmers have enjoyed the benefits of a subsidized interest rate for the past three years? Is the goal

of a farmer-owned and -controlled credit system organized on cooperative principles attainable and if attainable, is it worth striving for? Will such a system best serve the credit needs of agriculture? What are its limitations?

The Federal Farm Loan Act of 1916, which provided for the establishment of the Federal Land bank system, was enacted with the intent of making it possible for farmers, through collective action, to reach the investment markets of the country and obtain long-term amortized mortgage loans at rates in keeping with the general level of money rates and the nature of the credit obtained. The system was intended to be cooperative in character and eventually farmer-owned and largely farmer-controlled.

From organization in 1917 until 1932, the system functioned primarily as a service organization borrowing funds from investors through the sale of its bonds and passing on to farmers such savings as it was possible to effect. The interest rate charged by the banks showed a gradual downward trend from the high of 6 per cent during the early 1920's to a low of 5 per cent during the latter part of the same decade. The $9,000,000 of original capital stock subscribed by the Federal Government was gradually retired and by 1932 farmer-borrowers owned 99.7 per cent of the $65,676,000 outstanding capital stock. While the degree of financial success attained by individual Federal Land banks and the degree to which they might be said to have functioned as truly cooperative institutions varied from district to district, I think it is fair to state that they demonstrated, under conditions existing from 1917 to 1930, that a cooperative credit system could be made to function satisfactorily, on a business basis, and that farmer-borrowers could safely be given responsibility for its operation and management.

Following 12 years of declining real estate values, the Federal Land banks in 1932 found themselves, in common with many other lenders, in a precarious financial condition and it became necessary for the Federal Government to come to their assistance as, through the Reconstruction Finance Corporation, the Home Owner's Loan Corporation and later through the Federal Deposit Insurance Corporation, it came to the assistance of other lending institutions. Furthermore, it was obvious that merely giving the banks such financial assistance as might be necessary to enable them to weather the storm was not all that was required to meet the situation. With conditions then existing in the money market, the Federal Land banks were unable to borrow except at prohibitive interest rates and even had funds been available,

the law under which they operate would not have permitted the banks to have loaned enough to refinance the debts of the great majority of debt-burdened farmers.

In the circumstances, the question arose as to whether some form of emergency Government lending institution should be established which might, in effect, liquidate the Federal land banks as well as the farm mortgage holdings of private and institutional lenders or whether to meet the emergency with emergency measures which would retain and strengthen the existing Federal Land bank system and use it as the nucleus around which to build a complete and permanent system of credit for agriculture. The latter course was chosen. Experience has indicated the soundness of this decision since the farm mortgage refinancing program of the Government was accomplished more efficiently and economically by the experienced personnel of the Federal Land banks than would have been possible by any newly created emergency agency.

As an emergency measure, the interest rates on Federal Land bank loans were first reduced to 4½ and later to 3½ per cent, the Treasury reimbursing the banks for the difference between the contract rate and the rate paid by the borrower. Under present legislation, the present 3½ per cent rate expires July 1, 1937 and unless new legislation is enacted, interest rates will revert to the contract rates called for in existing mortgages less such interest savings as the banks find it possible to pass on to borrowers as a result of bond refunding operations carried out during the past two years.

While temporary interest subsidies were probably justified during the emergency period to assist in the financial rehabilitation of debt-burdened farmers, in the opinion of the writer, the majority of farmers do not desire a permanent subsidy of interest rates after the emergency is past. Subsidizing the interest payments of Federal Land bank borrowers helps less than one eighth of all farmers, and most of these are no longer in financial distress. Hence, subsidized interest rates are not a substitute for fair prices which affect all farmers. Permanently subsidized rates would increase the violence of land booms. They would also tend to discourage private lending institutions from operating in competition with subsidized agencies and thus would tend to increase, perhaps to a dangerous degree, the already heavy concentration of the farm mortgage debt in the hands of a single agency. While courage is required for the elimination of any subsidy, the time has come for facing the fact that these direct

Government subsidies must be tapered off if the goal of a business credit system for agriculture is to be attained.

I think it might also be argued with considerable force that a self-sustaining cooperative credit system is in the best long-time interests of the individual farmer. It is an axiom that control follows the purse strings. There would appear to be no good reason for assuming that this would not be the case with a permanently subsidized farm credit system. Assuming an active farmer interest can be built up through an educational program similar to the programs carried on by our more successful marketing cooperatives, it seems to me that agriculture is likely to be best served by a farmer-owned and -controlled system free from the possibility of undesirable outside interference or of being seriously crippled or even destroyed at some future time through the sudden withdrawal of Government subsidies.

Some mention should be made in passing of indirect subsidies in the form of Government capital invested in the various credit institutions under the supervision of the Farm Credit Administration. All of the permanent institutions under the supervision of the Farm Credit Administration, with the exception of the Federal Intermediate Credit banks established in 1923, make provision for subscriptions to capital by farmer-borrowers and for the retirement of stock now owned by the Federal Government. To the extent that such stock is not retired, the Government has, in effect, provided these institutions with an annual subsidy in an amount represented by the earnings on the Government's capital investment.

There is much to be said in favor of making available such aid as may be necessary to provide agriculture with adequate credit facilities in the form of capital stock subscriptions in a system in which the farmer-borrower has a financial stake rather than providing such aid in the form of direct loans, Government guarantees of securities, or subsidies. Such a procedure requires the farmer-borrower or his cooperative association who receives the benefits of the system to share in the risks as well as the benefits. From the standpoint of the Government, fewer abuses are likely to result in the form of demands for larger loans or ever-increasing subsidies. The farmer's investment in the system is likely to result in a somewhat more conservative attitude in the extension of credit than would be the case if the Government were making direct loans. In other words, from the standpoint of public policy, it would appear to be better business, if the private credit facilities available to agriculture are thought

to be inadequate, for the Government to go into partnership with farmer-borrowers in establishing a credit system rather than for the Government to make direct loans under conditions where the beneficiary will quite likely be back for further assistance, possibly in a larger amount, the following year. From the standpoint of the farmer, a partial capital interest in and partial control over policies would appear to have advantages over depending entirely upon control through political channels to obtain the objectives sought.

In addition to building a complete coordinated self-sustaining credit system for agriculture, another definite objective of the Farm Credit Administration is to build the system on cooperative principles. If this is to be accomplished, it will require a continuous process of education, bringing to farmer-members full information in regard to the problems and policies of their credit organization on which to base their decisions. The task is a tremendous one and will require not only the continued efforts of the Farm Credit Administration but also the efforts of the research, teaching and extension staffs of our agricultural colleges. The goal we are striving to attain is that of building up an informed and interested membership in these credit institutions which will participate actively in their affairs. While the job is difficult, it is not impossible. It has been done by some of our most successful farmers' cooperative organizations. The results in terms of solidarity and the effectiveness with which problems are met as they arise have been well worth the cost. It involves starting from the ground up. We must first develop strong active local organizations of borrowers—national farm loan associations and production credit associations—and then coordinate their activities. This is not only one of our most important problems but also one of the most difficult. It is the policy of the Farm Credit Administration to encourage the development of these local units and to assist in building them up to a point where they will play an active rather than a passive role in the extension of credit and the collection and servicing of loans once they are made. We believe this policy to be sound. This belief is based in part upon the fact that those Federal Land banks which encouraged the national farm loan associations in their respective districts to assume a real responsibility both in making and collecting loans have weathered the economic storms of the past four years and are in a stronger financial position today than those banks which made little or no effort to encourage the development of sound local organizations. The

job is particularly difficult in the case of the local national farm loan associations making long-term mortgage loans where the farmer usually contacts the association only at the time he obtains a mortgage loan, which ordinarily is but once or twice in a lifetime.

The ultimate goal of the coordination of national farm loan associations and production credit associations is to provide a single office to which a farmer with a basis for credit can go to obtain his credit requirements. On the face of it, the problem would appear to be relatively simple. However, it is necessary to keep in mind that there are in the United States upwards of 5,000 local national farm loan associations, or an average of about two associations to very agricultural county. In many instances, the territory served by a particular association is too small to permit it to function effectively in servicing loans even under the most favorable circumstances. There are a great many instances of overlapping and duplication and, of course, as a result of the long downward trend of land values resulting in foreclosures and losses, a wide variation in the degree of capital impairment of individual associations. The problem here is to work out joint management arrangements and ultimately to consolidate a number of associations in order to provide an efficient business unit. This brings up all the problems that are inevitably encountered in such a move, involving community jealousies, conflicting interests of secretary-treasurers, not to mention financial and legal difficulties in effecting consolidations. While, considering the magnitude and scope of the program, some progress has been made, we still have a long way to go.

It is essential that the operations of national farm loan associations be placed upon an efficient basis before we can go far in coordinating their activities with those of the production credit associations. Here again, some progress has been made in spite of difficulties. As of September 1, 1936, there were upwards of 1,000 instances in which a production credit association and national farm loan association employed the same person as secretary-treasurer, were housed in the same building, were located in the same town or where the secretary-treasurer of a national farm loan association served as a production credit association representative. Thus, in something like a third of the counties in the country, the credit facilities of the Farm Credit Administration are made reasonably convenient to farmers in the community.

Another major problem of the Farm Credit Administration

centers around the policy of attempting to stabilize, in at least some measure, the amount of credit extended to agriculture by the institutions under its supervision. Agriculture as well as other business has suffered in the past from too much credit at the wrong time, resulting in losses to both borrowers and lenders. In 1933, faced with the task of refinancing farm debts on an unprecedented scale and a temporarily complete collapse of land values, the Federal Land banks began making loans on what, for want of a better term, we have called normal values. Normal value may be interpreted as the value that can be sustained by earning power with normal prices. Stated more specifically, the problem is that of making loans on values that can be sustained by earnings over the life of the loan. This, of course, immediately raises the question as to the probable future level of farm prices. To date, estimates of normal prices as used by the Farm Credit Administration have centered around farm prices that existed during the five prewar years, 1910-14, adjusted for shifts in production, demand and other factors. Faced with a practical situation, this is the procedure adopted to date. It is recognized, of course, that 1910-14 or any other period arbitrarily selected does not necessarily represent an accurate or even adequate forecast of the future. Here is a problem toward the solution of which not only the Farm Credit Administration but other lenders would welcome the cooperation of a group such as the American Farm Economic Association. The experience of farm mortgage lenders during the past depression has demonstrated that the blind following of market values of farms as a basis for making loans leads to disaster. In making a long-term loan, it is recognized that the ability of the borrower to meet his installments as they fall due is a paramount consideration. His ability to meet his installments depends to a large degree, among other things, on the prices he receives for his products. Hence, we arrive at a point where we are forced to make some estimate of the probable level of farm prices over the life of the loan. As previously stated, this is a problem on which the judgment of the best students in the field is urgently needed. It is not of much practical value to point out that the 1910-14 base selected will not necessarily give the right answer. We need constructive suggestions as to a better basis.

Even assuming the basis of determining normal values were permanently and satisfactorily solved, the question still remains as to whether a semi-public institution such as the Farm Credit Administration can withstand the pressure that is certain to arise

for loans on the basis of current earnings during periods of high prosperity. This is an important question in a country where farm prices, farm incomes, and land values fluctuate as widely as they have in the past in many parts of the United States. It has not been difficult to justify the normal value policy to date since in the majority of instances it has resulted in appraising farm land at a higher level than current sales prices. The real test will come when it results in appraising farms at levels lower than current sales prices and in making a smaller loan on a given farm than a private lender might be willing to make. While I am not so optimistic as to believe that the Farm Credit Administration, or any other single agency can fully curb the evils resulting from the over-extension of credit which commonly occurs during land booms, I do feel that it is time we started to move in this direction and that at least a few beginning steps have been taken. If we can develop a basis for appraisal that will place competition for loans between the Farm Credit Administration and institutional lenders and between different institutional lenders on the basis of service, of interest rates and of terms of the loan rather than on the basis of competitive loan values, we shall have done at least something to avert or to mitigate disasters resulting primarily from bidding up land values to fictitious heights and burdening farmers with a load of debt they can never hope to repay. In my opinion, institutional lenders are willing to cooperate if a sound program can be developed. In developing the program we need the best thought of groups such as this.

Even assuming we find an approximation to the answer, much more will be required than the adoption of a lending policy by the Farm Credit Administration and institutional lenders. If we are to get very far, it is essential that the principles involved and the dangers inherent in financing the purchase of farms on the basis of market values be thoroughly understood by the great mass of farmers who, in the last analysis, are the ones who suffer most during the ensuing crash. Here is an educational job which presents a challenge to this group and to the combined research, teaching and extension forces of all our agricultural colleges. If we are to avoid in the future even in some measure, such catastrophes as those of 1921 and 1932-33, we have got to bring about a much clearer understanding of the problem on the part of the individual farmer than we have at the present time. While something can be done to discourage speculation and while individual lending institutions in their own interests if for no other reason

can and probably will adopt lending policies which will have the effect of bringing about somewhat greater stability in the extension of credit, and indirectly in land values, in my opinion, the problem is more basic and requires more far-reaching remedies than this.

Production Credit associations and Banks for Cooperatives, like the Federal Land banks, can do much in the way of extending credit on a basis which is in the long-time best interests of borrowers. The Production Credit associations have, for example, inaugurated a policy of making loans on a budget basis. Emphasis is placed on sound loans as opposed to safe loans—on sources of liquidation as opposed to collateral. This policy encourages a farmer to make his financial plans for the season at the beginning of the year—to determine the amount of credit he will need to carry out his operations and, equally important, to estimate the probable amount of funds that will be available from various sources with which to meet his obligations. Such a system, which incidentally is being adopted by increasing numbers of private and commercial lenders, should assist the individual farmer through more careful financial planning, to get out of debt.

Likewise, the policy of the Banks for Cooperatives in encouraging the development of cooperatives from the bottom up and the placing of such organizations on a sound financial basis through the orderly building up of adequate capital provided by members should do much over a period of years in placing borrowing organizations on a sound financial basis.

For many years, farm organizations have worked unceasingly for the establishment of a complete credit system to serve the peculiar needs of agriculture. In the permanent units of the Farm Credit Administration, we now have the framework of such a credit system. While imperfect, enough progress has been made to indicate that a cooperative business credit system can be made to work. These permanent credit units have adequate capital, competent personnel, and a large enough volume of business to permit of reasonable efficiency. The present contract mortgage interest rate of the Federal Land banks to borrowers through national farm loan associations of 4 per cent is the lowest rate ever made generally available to American farmers or to any class of individual borrowers on first mortgage loans. Likewise the present interest rate on production credit loans of 5 per cent is the lowest rate on such credit ever made available on a national basis. In both cases these rates are based on busi-

ness operation and money market conditions without any Government interest subsidy.

The purpose of the Farm Credit Administration is to put agriculture on a basis of credit equality with corporate industry, by providing permanent business organizations through which large numbers of individual farmers whose credit basis is sound, but whose requirements are small, may have constant access to the investment markets. If successful, the Farm Credit Administration can become an important stabilizing factor in agriculture, as to rates of interest, terms of loans, and production of agricultural products. It cannot reorganize, regiment, or control agriculture, and, in the opinion of the writer, to attempt to combine such an aim with the function of credit would jeopardize its major purpose. The dangers of combining credit with experimental programs in surplus control have been demonstrated by the Federal Farm Board. The most that can be hoped from the Farm Credit Administration in this field is assistance through sound credit policies in reducing the violence of cyclical swings in production and prices of farm products and in values of farm land.

The Farm Credit Administration can never meet the credit needs of all farmers. To attempt to do so would increase losses and costs and probably result in failure. It can provide reasonable credit standards which a substantial majority of farmers can attain. To the extent that national welfare justifies the extension of credit to farmers who can not meet reasonable credit standards for financing the purchase of farms or for other purposes, special agencies should be established to handle the problem rather than to jeopardize the operations of this business credit system. This policy has been followed in providing Land Bank Commissioner's loans and emergency crop and seed loans. With the continued criticism and support of all agencies and institutions interested in farm welfare, it should be possible to make further progress in the establishment of a permanent complete cooperative credit system that will meet all of the credit needs of agriculture that can be handled on a sympathetic but sound business basis.

Discussion by Nils A. Olsen

Equitable Life Assurance Society of America

In this paper Governor Myers displays the broad and sympathetic understanding of the farm credit problem which throughout has characterized his direction of the Farm Credit Administration. In the main it is not difficult to agree with his appraisal of the emergency activities of the Farm

Credit Administration. This was a big job and it was well done. The refinancing in a relatively short period of a large volume of distress farm loans at lower rates of interest and on a long term basis eased a financial strain that had become acute. As Governor Myers well states, it was not alone debt-ridden farmers who directly profited thereby, but the pressure on many a distressed creditor was lessened at an opportune time. He might have added that the availability of this source of help at a time when many other credit agencies were financially prostrate or limp with fear contributed much to restore the confidence then sorely needed.

But without minimizing the benefits of these emergency activities it is possible to claim too much for them. To be sure this emergency assistance prevented the foreclosure of a great many farms, but is not the marked falling off in foreclosures to which he refers explained in large measure by the substantial improvement in agricultural income and by the fact that the bulk of distress loans have now been foreclosed? Is the rise in farm land values and is the improved relationship of interest payments to gross farm income due as much to the emergency activities of the Farm Credit Administration as to the rise in agricultural prices and farm income? Will we not find in the real estate portfolios of the insurance companies, savings and country banks, and perhaps even more in the portfolios of the Federal Land banks themselves, the explanation for much of the reduction in the total farm interest bill?

And I wonder, too, if it may not be premature to assess the benefits derived from these emergency activities. Who is prepared to say what part of this large volume of loans made under emergency conditions will return to the distress class and create further serious problems? What will be the long-time effects of commissioner's loans and subsidized interest rates on the welfare of agriculture and on the cause of a cooperative self-sustaining farm credit system in this country? Can a semi-public institution which under emergency conditions has increased its holdings of farm mortgage debt from twelve to forty per cent of the total farm mortgage debt maintain a sound position in the face of pressures it has helped to create?

Governor Myers' discussion of plans for the future development of the system is refreshing if not altogether reassuring. I agree with his view that a cooperative self-sustaining farm credit system operated on a strictly business basis would be in the best interest of agriculture, but that this is possible of attainment or that present policies are making for that result is not so clear. Governor Myers' view apparently is based in part on the experiences of the system prior to 1932 and in part on a belief that an intensive program of education will enable farmers to assume ownership as well as management of the system. I have difficulty in finding these conclusions in the earlier experience of the system. It is true that during this period the original capital stock subscribed by the government was gradually transferred to farmer-borrowers, but the system continued to enjoy a subsidy in the form of tax-free bonds and an ever present hand on management was maintained by the government. Even with this direction and supervision serious troubles developed in parts of the system. The critical developments following 1929, of course, seriously aggravated the situation and as we know made necessary generous government assistance to the banks.

The efforts which the Farm Credit Administration is making to organ-

ize and coordinate the activities of the several units of the system and its parallel efforts to educate farmers to their responsibility for the maintenance and management of the system must command admiration. The difficulties in this task are well set forth in the paper and it is evident that it will require time and patience to weld the several units into an effective system and to educate farmers to the point where they can and will assume responsibility for the support of the system and the direction of its affairs. In this connection Governor Myers does well to appeal to the agricultural research and educational forces of the country for their assistance.

But it is one thing to favor a cooperative self-sustaining farm credit system and yet another to attain it. Too often expediency leads to the acceptance of policies that tend to undermine the major objective. Certainly the system cannot be considered self-sustaining and operated on a business basis if it is to be continually nurtured by subsidies. Governor Myers favors with the passing of emergency conditions the gradual elimination of the direct interest rate subsidy. He argues effectively that subsidized interest rates will tend to be capitalized in higher land values, will tend to drive institutional and private lenders from the farm mortgage field, and perhaps worst of all, will tend to place the system itself under a political instead of a business administration. But it is difficult to share Governor Myers' view that the majority of farmers will not desire permanently subsidized interest rates after the emergency is past. What will be the reaction if and when interest rates are restored to the original rates of five per cent or more on older mortgages? Will not borrowers who have enjoyed a three and one-half and four per cent rate resist the higher rate? And under the present easy money policy is it likely that these requests will be denied?

Governor Myers will receive much support for the position he takes in favor of government subscription to the original capital stock of the institutions in the system. It is more difficult to follow him when he suggests that the alternative to this indirect subsidy is direct loans, government guarantees of securities, or subsidies. Must we assume that when normal conditions return farmers will require direct government loans and subsidies to meet their normal credit needs? If this is true, does it not mean that we have reached the point where a self-sustaining farm credit system operated on a business basis is no longer possible? The real justification for this type of indirect subsidy, it would appear, is the inability of farmers to provide the initial capital required in establishing a new credit system. When, however, these government subscriptions to capital stock and paid-in surplus recur at intervals for the purpose of restoring impaired capital or to provide a revolving fund for the same purpose, it seems to me they fall in the same class with direct interest rate subsidies.

The effort of the Farm Credit Administration to limit and stabilize the volume of credit advanced and thus influence the course of land values is at least a move in the right direction. The "normal value" basis of making loans even with its known defects is certainly far superior to the impressionable and erratic judgment basis hitherto employed and which has been when used alone the source of so much grief. Incidentally, experience shows that the personal element is important also in farm mortgage loans and that sane land appraisals of themselves will not necessarily keep loans out

of the distress category. If the effort of the Farm Credit Administration to stabilize the volume of farm mortgage credit is to have its maximum success, the cooperation of the major competing agencies will be necessary. When, however, Governor Myers expresses the thought that competition between the Farm Credit Administration and institutional lenders should be on the "basis of service, of interest rates and of terms of the loan rather than on the basis of loan values," does he not gloss over the fact that competition touches directly all of these factors and that perhaps no element in the competition for loans attracts business quite as much as do low interest rates? If the principal agency in the field of farm mortgage credit is fortified competitively with a subsidized interest rate and besides can use Commissioner's loans to advance up to seventy-five per cent of the value of the land, is it not practically inevitable that competitors will be induced to make larger concessions on other counts, including the amount advanced if they desire to make farm mortgage investments?

Helpful as will be this effort to prevent excessive lending and inflated land values, the farmer is after all the key to the situation. Governor Myers, therefore, very properly stresses the importance of educating farmers to the dangers of excessive borrowing.

THE BROADENING FIELD OF AGRICULTURAL ECONOMICS[1]

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The whole curve of American economic and political life has shifted to a new long-time trend, which may persist through the present generation. The turn in the trend became evident with the election of 1932; the election of 1936 indicates that the new direction will persist over many decades. The dominant characteristic of this new orientation is the belief that our economic institutions have lagged behind our technological progress; that depressions, individual insecurity, and unemployment are the result of these obsolescent institutions; and that conscious action to remodel the old institutions or to create new ones can increase the effectiveness of our economic mechanism. The resulting social experimentation has already affected almost every phase of economic life.

The job of remaking economic institutions, and of forming policies for the action of public agencies of social control, requires the services of men who not only know the mechanisms of business and economics, but who are trained to a social point of view—who can think in terms of the general welfare of society as well as of the welfare of individual businesses or industries. Agricultural economists are peculiarly fitted for this type of work. The work of the agricultural economist, in farm management, marketing research and organization, price research, and outlook, has always recognized the general welfare as well as the individual interest. The agricultural economist has always been ready to turn to collective or public action when needed, as in crop and market reporting, standardization and grading, cooperative marketing, or in agricultural "outlooking." The business economist, on the contrary, has been trained pretty narrowly to aid his business employer to make more money; even today teachers in many university schools of business boast of this point of view.[2]

These conditions have led public agencies during the past four years to turn increasingly to agricultural economists when they needed men with a broad social vision. In agriculture itself, the

[1] This paper was presented at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 30, 1936.

[2] See papers on Teaching Statistics in Schools of Business presented at meeting of Am. Stat. Association in Chicago, December 28, 1936, including those by Theodore J. Kreps of Stanford, Olin W. Blackett of Michigan, and Theodore H. Brown of Harvard. These will probably be printed in *Proceedings of the American Statistical Association.*

two ranking action agencies are headed by members in good standing of the Farm Economic Association, with Henry A. Wallace as Secretary of Agriculture and William Myers as Governor of the Farm Credit Administration. Another member, Howard Tolley, heads the AAA. But even outside the agricultural field they are heavily represented. In the Treasury Department, the Director of Research and Statistics is G. C. Haas, in the Federal Reserve Board, E. A. Goldenwieser is the head of the Research Division, in the Department of Commerce the new Division of Industrial Economics is headed by C. C. Chambers. Even in the Brookings Institution, the Institute of Economics is headed by E. G. Nourse. Each of these men is a professional agricultural economist of long standing.

Agricultural economists, then, are being drawn upon for service in many fields where broad social training is needed. At the same time, the field of agricultural economics itself is broadening out into newer and deeper interests. Farm economists in the past have been too much preoccupied with the farm and the farmer as economic units, and have given too little attention to farm people as human beings. In the past both economic research and extension work have been concerned largely with the problems of the commercial farmer, while those lower on the rural income scale have received less attention. Today, the farm laborer and tenant farmer are receiving increased attention. The problem of rural poverty, of the farm people at the lower end of the income scale, is being attacked directly by the Rural Rehabilitation program; and that of rural slums, by the submarginal land program; the farm labor problem is being given new attention and study; the tenancy problem is being reexamined by a Presidential committee with a view to positive lines of action; while the Social Security Board is studying how their new social insurance programs may be broadened to protect farm people as well as those in industrial occupations.

All of these developments call for agricultural economists with a broader training than in the past. In addition to the agricultural, economic, and statistical training in their own specialized field, agricultural economists of the future will need to know how to lead public opinion, with some knowledge of individual and social psychology to help them; they will need to understand the basic facts of modern industrial organization, including corporations and their significance; they will need to know enough political science and law to understand, and even participate in, the practical procedures of the legislative and judicial processes

through which new economic institutions are evolved. Finally, they will need some acquaintance with the practical procedures of public administration, through which public control of social processes is made effective.

Agricultural economists who expect to serve as economic advisers to public agencies must be prepared for a type of work which differs somewhat from that of the research economist or of the extension economist, even though it contains some elements of both. They must be thoroughly grounded in research methods and materials, and know what it means to reach careful and impartial conclusions. They must know how to state their conclusions in simple and clear-cut fashion, and how to "sell" them to the administrators whom they advise. It may take more skill in simplification and salesmanship to get an idea over to the members of a Farm Board than to explain it to a group of farmers. But finally, the economic adviser must develop habits of work and precision different from that of a researcher. He must think ahead on matters of policy, and prepare in advance to face the problems that may arise in the future. But even then, many questions will arise which require answers in a week, a day, or even an hour. Each of these questions will involve economic problems around which a doctor's thesis might well be written—but the administrative action cannot wait on the dissertation. For better or worse, action must be taken within the time allotted; and if the economic adviser is to contribute to that decision, he must place his analysis before the administrator before the decision has to be made. Here is where the economist must draw upon his store of research experience and knowledge. He must bring together the relevant facts which are available; organize and interpret them as effectively as possible; and state and present his conclusions clearly and effectively within the time available.

Under this kind of pressure his conclusions will rarely be 100% right; nor will his analysis be as highly polished and perfected as if it were a doctor's thesis. But judgments are rarely perfect in this world. Even an 80% correct appraisal of a situation may provide a better basis for action than a mere rule-of-thumb decision. If the economic adviser is really to aid in policy-making, he must frequently be prepared to reach his conclusion on an 80% basis, if time or information do not permit a more precise answer. In this regard, the economic adviser bears the same relation to the research economist as the practicing physician bears to the medical research worker. In each field, the practitioner applies under the exigencies and pressures of rapidly moving

life, the scientific information and knowledge which has been painstakingly worked out in the research laboratory.

There is still one other dimension in which the agricultural economic field is broadening, and that is in the recognition of the interdependence between agriculture and industry. Farm economists generally have come to recognize that full prosperity for the farmer can come only with full activity for industry and full employment for city workers.[3]

Now that farm production has been reduced and industrial production has been increased until the two are in fairly good balance, further restriction of farm production can add nothing to farm income. The problem for the future is rather to increase farm production and industrial production together, while continuing to maintain the proper balance between the various lines of production, and while increasing consumer buying power to match the increased production.

There are two lines along which agricultural economists can move to help toward the solution of this larger problem of industrial activity. The first of these is to acquaint themselves with the modern trend of economic thought in this field. Two recent books by the Brookings Institution—"America's Capacity to Consume," and "Income and Economic Progress"[4] are invaluable in this connection. Although they are themselves but preliminary explorations in a vast uncharted field, they nevertheless give a rough guide to the untapped riches awaiting us through proper industrial policies, and suggest the general line of the economic policies needed to make them available.

The second line of action open to farm economists is to teach farmers how great their real interest is in industrial recovery, and to guide them to demand and support adequate public action in the industrial field. Farmers and farm organizations need to be led to understand that establishment of full farm incomes and of a high standard of living for farmers rests upon an adequate and enduring solution of the industrial problem. Farmers are just as vitally concerned with working out an adequate successor to the N.R.A., with the policies of labor unions, and with socially desirable price and wage policies in industry, as are city workers. As Secretary Wallace stated in a recent speech:[5]

[3] See speech of Secretary Wallace "Agricultural Security" before American Farm Bureau Federation at Pasadena, California, December 9, 1936. Also article by Mordecai Ezekiel in *Today*, November 17, 1933 "Can We Starve Ourselves Rich?" and speech before National Assn. Marketing Officials New York City November 15, 1934 on "AAA, Past Present and Future."

[4] "America's Capacity to Consume" by Maurice Levin, H. G. Moulton, Clark Warburton, 1934; "Income and Economic Progress" by H. G. Moulton, 1935.

[5] H. A. Wallace, speech before American Farm Bureau Federation, Pasadena, California, December 9, 1936.

One other factor that has a direct bearing on agricultural security lies primarily with industry. This consists of the price, wage and production policies that industry follows.

There can be no ultimate security for agriculture if industry continues to swing back and forth between boom and depression.

I believe that, for industry to play its part steadily in making this a country of abundance, there must be balance within industry as well as balance within agriculture and balance between industry and agriculture. . . .

We need to approach this problem, not by fixing our attention on specific details taken by themselves, not on prices alone, or wages alone, or profits alone, but by considering the things that taken together make for balance and abundance. Unless we do this, we shall continue to commit the same kind of mistakes leading to insecurity that we have in the past.

The real problem of industrial policy for the future is how to coordinate the action of various industries to secure an industry-wide expansion of production to the point where unemployment disappears, and to carry with it an increase in payments to workers and farmers sufficient to provide consumer buying power for the increasing production, without setting up strains and stresses within the structure which will lead to new lack of balance and again plunge us into depression. Under N.R.A. codes, many industries increased wage rates to workers, but increased selling prices to an offsetting amount, so that no net gain in real consumer buying power resulted. Higher wages per hour, higher prices, and a constant level of industrial output, cannot provide an effective answer to the industrial problem.

The Brookings' reports show that increasing technological efficiency offers business men an opportunity to reduce prices and expand output, without reducing wages. They urge business leaders to take such action voluntarily. In view of the past and present records of corporation executives, I personally believe that this appeal to the better natures of business leaders is likely to be an ineffective answer to the general problem, even though a few of the more public spirited business leaders may adopt the Brookings' proposals. On the contrary, I believe that public action will be necessary to provide business men a vehicle through which they can take collective action for the general welfare, just as public action through the AAA was necessary to provide farmers a vehicle for collective action. Elsewhere I have set forth the details of several plans through which such collective action might be taken for industrial coordination on a national scale.[6] Many other lines of public action are possible; many will

[6] "2500 a Year" by Mordecai Ezekiel, published by Harcourt, Brace & Co., 1936. Note especially chapters VI, VII, and XI.

be discussed in the current session of Congress; and one or more may be adopted. If any plan is to succeed, however, it must provide one essential—it must pass on to consumers, either as lower prices or higher wages, their share in technological progress, so that increasing per capita consumption may keep pace with increasing per capita production, without disastrous breakdowns in production and employment. Until an effective means to this end is developed, farmers and city people alike will continue to suffer from standards of living lower than our resources could provide them.

In conclusion, agricultural economics, with its emphasis on the social and general welfare point of view, has made a material contribution, both in methods and in men, to the social reconstruction which is just getting under way within the United States. Even broader training than in the past is needed to help fit agricultural economic students to fill these new and broader opportunities. Economic diagnosticians and practitioners need to be developed as well as research and extension men. At the same time, the field itself is broadening, with more emphasis on the human welfare of farm people themselves, and with increased responsibilities and opportunities to understand the broader problems of agricultural-industrial relationships, and to aid in finding adequate and durable solutions to them.

LAND TENURE RESEARCH IN A NATIONAL LAND POLICY[1]

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RESETTLEMENT ADMINISTRATION

Introduction

The purpose of this paper is to present a brief and cursory discussion of the relation of land tenure research to our national land policy. This general topic could be attacked from many different angles. However, it appears that a reasonable procedure is to bring into the foreground some of the principal characteristics of land tenure and of national policy-making, and then discuss some of the main points of which the tenure research worker should take cognizance if he is interested in shaping public policy. The topic is such a broad and complicated one that it must be greatly delimited for the purpose of this discussion. Consequently, the content of the paper has been chosen in an arbitrary manner, and is not presented as the last word that can, or should, be said on the subject.

Traditionally, social science research has been more closely related to the organizations and processes of colleges, extension divisions, and analogous educational agencies, than it has been to the problems of evolving and administering specific national programs of action. During the past three or four years, however, the social scientist has been taken into the halls of the policy-makers both as an adviser and as an active administrator. There is some evidence, and many complaints, which indicate that old and customary methods and procedures of conducting research are not fitted to the new task of aiding in framing national policy. The probability that this is true merits some consideration. There are always those who are waiting for an opportunity to "prove" that science should give way to transcendentalism, prejudice, and emotion when questions of public policy are concerned. If research workers can be aroused from their lethargy of objectivity to the point of critically examining their own methods in view of the demands made by policy-making, it may yet be shown that systematic observing, objective analysis, and reflective thinking can significantly supplement, and in some instances virtually take the place of, endless debate, political bickering, and accumulated prejudices, often called "common sense."

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

The Land Tenure Field

A few years ago, George S. Wehrwein pointed out that: "There are two main types of relationship between man and land. One is land utilization, in which land directly serves human needs, furnishing raw materials, food and shelter, and standing room. The other is land tenure, including in that term all the relations established among men, determining their varying rights in the use of the land." A few sentences later, he said: "Land tenure research is concerned with a study of the distribution of rights in the use of land, and the consequent effects of the distribution of these rights in various forms on the social and economic welfare of individuals and society, both present and future."[2]

The meaning which Wehrwein has given to the term "land tenure" is not only different from that used in the field of law, but it is an extremely broad concept in which individual research workers can find sufficient license to ramble lightly over the fields of agricultural economics, rural sociology, and convenient segments of law and political science. In other words, "the distribution of rights in the use of land, and the consequent effects of the distribution of these rights . . . on the social and economic welfare of individuals and society" can be conveniently narrowed or broadened to suit the imagination of each student. In our competitive, capitalistic, and democratic type of social organization, there is virtually no limit to the ways in which rights in the use of land are distributed. Certain rights inhere in the Federal Government, others in state and local governments, and still others in the unorganized public at large. The owner has the greatest number of rights out of the total bundle of which property is composed, but even his rights are never absolute. He may, of course, limit his rights, for either a long or a short period of time, by contracting some of them away to a tenant, a mortgagee, a holder of an easement, or by analogous procedures. Moreover, his rights may be very significantly limited by government exercising such powers as taxation, eminent domain, and regulation.

Out of these diverse ways in which rights in land may be distributed, as among organized governments, as among governments and owners, and as among owners and other users of the land, arise the problems that make up the content or substance of land tenure as a field of study. The field is not limited to a particular use-class or ownership-class. Farm land, forest land, grazing land and similar use classes, as well as, private land,

[2] *Research in Agricultural Land Tenure: Scope and Method*, Social Science Research Council, Bulletin No. 20, April 1933.

public land, Indian land, and similar ownership classes are all involved. Obviously, the breadth of the tenure field, as defined by Wehrwein and accepted for this discussion, is so extremely broad that it represents a significant challenge to the strictest type of thinking on the part of the tenure research worker, if he is to winnow from its complexities either the mental tools necessary for studying tenure problems or a group of significant problems which merit his time and effort.

The breadth and complexity of the field are not, however, its only characteristics which make its problems unusually difficult. The ways and means by which rights in the use of land are distributed among men, either as individuals or in organized groups, are wholly the results of man's action. They are not primordial or natural forces. This means, of course, that land tenure problems are social science problems, and not natural science problems. And since man's actions have never been as completely comprehended and understood as have the more uniform and simpler actions of nature, this also means that the student of land tenure does not have for his work the advantages of as highly developed rules of thought as do workers in the fields more closely related to the natural sciences, such as land utilization.

Notwithstanding, the breadth and complexity of tenure problems, and the lack of highly developed rules of thought for examining man's actions respecting the distribution of rights in the use of land, it is probable that some progress can be made in more closely correlating tenure research and policy-making. Before, however, attempting to discuss some of the ways and means for bringing about such correlation, it is necessary to point out some characteristics of policy-making. The limitations of time and space prevent a comparative study of policy-making and formal educational procedures. However, since social science research has customarily been closely allied with the latter, and has only recently been directly affiliated with policy-making to any substantial degree, such a comparative study may be worthy of future consideration.

Some Characteristics of Policy Making

In a great number of instances the ways and means of distributing rights in the use of land are the result of men acting collectively, and are subject to alteration or change only through collective action. An important form of such collective action takes place through government. The following discussion per-

tains almost wholly to that type of collective action which we ordinarily call "government policy."

A shrewd observer has pointed out that there are always four steps which are consciously or unconsciously taken by the policy-maker. First, he sets up his ideal or objective. Second, he takes an inventory of the existing situation. Third, he measures or visualizes the deficiency—the difference between the existing situation and his ideal. Fourth, he chooses a course of action to overcome this deficiency, or, in other words, to bring the existing situation to the ideal which he has set.[3]

Approximately the same point of view was expressed by Charles A. Beard, when, in discussing the procedure followed by the statesman, he said:

> He [the statesman] takes the world and his nation or political unit, as he finds them, using knowledge, experience, and insight or judgment in gauging the necessities which they present to his intelligence. He sees that within the border of these necessities there are appearances of choice, of policies that may be adopted, of actions that may be taken, of ends that may be attained. He clarifies his own purposes, and chooses among alternatives. This clarification and choice he effects with reference to some canon of the ideal or desirable, some picture of the world and his nation as he would have them be. Even a choice between two evils involves the consideration of desirability; this bad is better than that worse. In choosing and acting, the statesman estimates proximate and long distance outcomes with the aid of the empirical and statistical calculations available to him. Subject to hazards and aware of them, he clarifies his purpose, sets his goal, conceives a state of affairs more desirable than the one in which he finds himself, proceeds to action, and submits his program, ideal, decision, and action to the long judgment of his nation and the world. In the sphere of complicated human affairs this is the only procedure open to an intelligence that is not defeatist, passive, or utopian.[4]

The clarification of purpose, the conceiving of a more desirable state of affairs, the setting of a goal, the originating or selecting of a line of action, and the action itself, are all attributes or characteristics of policy making, and it is practically a continuous process. Old purposes are constantly being reexamined, new goals are being set, different ideals are being conceived, and new lines of action are continually emerging. The problem of choosing best alternatives from among many possibilities is always present. Ethical and esthetic considerations are involved both in setting the ideal and in choosing the course of procedure

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[3] From remarks by Xenophon Caverno during discussions, in Washington, D.C., December 16, 1936, held by the Special Committee on Farm Tenancy appointed by the President.

[4] *The Open Door at Home*, by Charles A. Beard with the collaboration of G. H. E. Smith. Macmillan, 1934.

for overcoming the deficiency between the existing situation and the ideal.

Where does research fit into this picture? And more specifically, where does land tenure research have a part in this policy-making process as it is expressed with respect to land and man's relation to the land? The latter question involves what might properly be termed the central problem of this paper. The following treatment of it must necessarily be very sketchy.

Land Policy and Tenure Research

From a comprehensive point of view, the ways in which the policy-making process expresses itself with respect to man's relation to land are almost limitless. Besides the 49 different governments, each with its legislative, executive, and judicial branches, there are many different bureaus, commissions, divisions, and similar units in each of these governments, which are taking part in making our national land policy. Not only are there numerous land policy-making agencies with various methods of procedure, and with overlapping and undefined fields of action, but there are also conflicts of ideals. If we look for purposes or objectives in some of the major programs of the national government, we find at least four which are outstanding. First, is the objective of maintaining as nearly intact as possible the property rights of the vast majority of existing farm owners. Second, there is the objective of conservation.[5] Third, is the objective to reduce governmental costs and increase individual opportunity in certain "problem areas." This objective is often closely linked with that of conservation. A fourth objective, which will probably receive wider recognition in the future than in the past, is to increase both the security, opportunity, and personal integrity of nonlandowning agriculturists, such as tenants and farm laborers. This statement of four major objectives of our national land policy is merely a convenient conceptual scheme. Each could be broken down into numerous aims of a more specific nature. On the other hand, they could easily be generalized into one broader aim. Neither objective is the exclusive attribute of any large sphere of national policy, but taken together they constitute most of the aims of what is commonly called our land policy.

[5] As used here, the conservation objective is intended to include aims that are concerned with "building-up" existing resources. Sometimes, this "building-up" is merely to restore depleted resources to previously existing levels. Sometimes, it goes beyond this point, and, in specific instances, creates a more abundant resource pattern than ever before existed.

The specific programs of action for attaining these objectives are not mutually exclusive. Nor is each such program within the jurisdiction or control of a single agency. The Agricultural Adjustment Administration and the Farm Credit Administration have both had important programs aimed at maintaining the existing farm ownership structure. The former agency has also made progress toward bringing about practices of soil conservation. The refinancing of farm mortgages may likewise have relieved the pressure on individual farmers to follow soil depleting cropping practices. The program of the Resettlement Administration has aided in conserving soil resources in lowering costs of government and creating greater individual opportunity in selected problem areas, as well as in improving the status of certain tenant farmers. The long established program of the Forest Service, and the newer program of the Soil Conservation Service are other instances of programs which involve more than one of the four objectives.

A proper question to raise here is as follows: What has the land tenure research of past years contributed to the selection of these objectives, and to the realization of these programs of action? If one had to give a purely unqualified answer, he would almost be forced to say, that past tenure studies have not contributed anything to these two segments of policy making. This, of course, is not a strictly accurate answer, but it contains such a large element of truth that it represents a real challenge to every social scientist who is interested in land problems. In 1933, Wehrwein wrote: "A survey of published material on land tenure in the United States indicates 58 research studies in this field. All deal almost exclusively with the so-called agricultural tenancy aspects . . . 26 of the 58 studies are primarily descriptive, concerned with painting a picture of tenancy in this country."[6] Some tenure studies have been made since this survey, which are not purely descriptive, and some which do not pertain specifically to tenancy. However, it is essentially accurate to say that most of our tenure research has been aimed at giving us an inventory of the existing farm tenancy situation. It has been descriptive of the extent, the major characteristics, and the past growth of tenant farming. In other words, our tenure research has aided in giving an inventory of the situation. It has done little in giving us specific information aimed primarily at aiding in choosing

[6] *Research in Agricultural Land Tenure: Scope and Method*, Social Science Research Council, Bulletin No. 20, April 1933.

ideals for policy making, or in selecting, among the various alternative courses of action, the one best suited for attaining such ideals.

If we agree that it is broadly or approximately accurate to say that the past tenure research has aided mainly in picturing an existing situation with respect to farm tenancy, we should then ask: Has this inventory been complete and exhaustive? If land tenure is a field of study concerned with all the ways in which rights in the use of land are distributed, and if tenure research has dealt, "almost exclusively with the so-called agricultural tenancy aspects," it is evident that other important segments of the field have not even been described or inventoried. There is room for a great amount of descriptive information which will show the tenure arrangements in common use among holders of non-farm land. The existing distribution of rights in the use of forest, grazing, mineral, and recreational land is of real importance to the formation of a sound national land policy. It appears, therefore, that the tenure research worker of the future might well be encouraged to turn his descriptive talents to the way in which non-farm land is held and used. At the same time, we need a more comprehensive picture than has ever been developed in this country of the different types or classes of rights of the federal government, the state government, the county government, the private owner, and the actual user of the land. If we can develop, within the next few years, a series of studies which will show some of the principal rights in our major use-classes of land as they are distributed among federal, state, and local governments, and as they fall into hierarchal patterns or structures from the apex of governmental rights down to those of private owners and individual users, we will have a valuable background picture upon which can be made significantly imposed the specialized work in the field of farm tenancy, and which will also be pertinent to many questions of national policy that are constantly arising.[7]

Simply to broaden our descriptive research work so as to include within its realm more segments of the land tenure field than that known as farm tenancy will not, however, bring about a substitution of research findings for "common sense," "guess work," and "emotional biases," upon which many decisions of policy making are now based. In order to encourage such a substitution, it is necessary for the individual research worker to

[7] Within the last two or three years, there are evidences that several students of land tenure problems have foresaken the traditional and relatively narrow field of farm tenancy to turn to studies of ownership patterns, and problems of public regulation of land use. These are signs that tenure research is being broadened to include more than studies of farm tenancy.

relate the ideals and accomplishments of national policy to the objectives and findings of his particular studies. The research worker who is interested in shaping public policy should recognize that the ordinary policy maker—whether he is an ignorant layman casting his vote, a duly elected legislator, or a highly paid administrator—often searches and begs and pleads for authoritative studies that will indicate what his ideals should be. Moreover, there is constant demand on the part of legislators and administrators for nonpartisan information that will point the way in choosing ways and means for attaining their objectives. In other words, the ordinary policy maker is not content with an inventory of the existing situation, and a statement of the difference between an ideal and the existing situation. The very nature of his duties force him to act, and in order to act he must choose among alternatives. When major problems of policy are concerned, it is rare that all alternatives are obvious to the man who has not been specially trained in the field, and it is very often true that the probable effects of choosing a given line of action can be predicted only after considerable study.

The selection of the objectives of our land policy and of ways and means for bringing the existing situation more nearly into accord with those objectives, inevitably results in drawing upon those spheres of knowledge commonly called ethics and esthetics. It does not, however, rule out of consideration that sphere of knowledge or that type of procedure which is known as science. It is possible for the scientist to show the policy maker, with, at least, a rough degree of probability, what the results will be of setting certain ideals and of selecting certain means for achieving them. This requires a type of research different, both in aim and procedure, from that which is intended primarily to describe past or present situations. If, for instance, we are faced with the problem of suggesting ways and means for improving our farm tenancy system the least that is required is a description of the various ways and means by which certain ends can be attained and a prediction of the results that may reasonably be expected if each, all, or different combinations of such ways and means are selected as programs of action. The mere listing and describing of reasonably possible lines of procedure is a research task in and of itself. The next step of predicting the probable consequences of inaugurating certain lines of action is, in the language of the street, "a tough assignment."

There are, at least, two requisites of research work of this general nature which merit brief consideration. First of all it

is necessary for the individual researcher to believe that he is properly within the field of scientific inquiry when he is attacking such problems. Many research workers rebel at the idea of making studies which are directly aimed at aiding the policy maker in setting his ideal and in selecting ways and means for attaining it. They insist that to choose among alternatives, or even to point the way by which someone else can make the choice, is to be biased and unscientific. This point of view we can give some such name as "intelligent ignorance," but it is, nevertheless, with us. Science, however, is no such stifling force to our civilization as proponents of this view would have us believe. To maintain an objective and unbiased approach does not preclude the research worker from studying the actual or probable effects of alternative ideals and alternative programs for attaining these ideals, and from presenting specific conclusions arrived at in such studies. However, in order to be objective and unbiased, he is required to state, frankly and fully, his assumptions and his procedure of thinking, by which he arrives at his conclusions. In other words, objectivity is a function of the method of procedure, and not of the content or characteristics of the problem being studied. A second requisite for conducting acceptable studies of the general nature here discussed is a broad and balanced point of view coupled with a wide knowledge of methodology on the part of the research worker. In its present form, research work is so highly specialized that it encourages a type of thinking which is virtually worthless when the necessity arises for predicting the results of national programs of action. The manner in which our ordinary social researcher "bites off" a tiny portion of the field and studies it day after day serves to magnify its importance to him. When this magnification is coupled with an over-dose of wishful thinking, some of which accompanies virtually every forecast, the result is another "crackpot" prediction, with which the halls of higher learning are well supplied. If we can succeed in destroying this narrow channelized type of thought, or can thoroughly correlate the work of various students, and at the same time direct our research toward evolving lines of action and predicting their probable results, we have gone a great distance in making research both master and the servant of policy making.

We sorely need a constantly expanding number of tenure research studies which are aimed specifically at showing the effects of existing programs of action on the distribution of rights in the use of land, and which will take the next step of indicating how these programs should be altered in order to most expedi-

tiously attain their purported ideals, or to attain other ideals which are more socially desirable. If, for instance, conservation of natural resources is an acceptable ideal, what are the effects of present tenure arrangements in preventing or encouraging conservation practices? And, most important, what should be done in altering existing tenure arrangements in order to encourage conservation? The two questions are not the same, and the answers to each of them may be different in the various areas of the country and for different use-classes of land. Similarly, there is need for answers to questions such as the following: What will be the major effects of a long-time national program of direct action aimed at aiding tenant farmers in becoming owners? What are the most desirable terms and conditions of ownership for the various sections of the country? What are likely to be the results of attempts to alter leasing agreements through such alternative procedures as education, regulation, and subvention? A hundred questions of the same general type could easily be listed. Answers to all of them need to be given, and such answers, if they are to be of value in policy making, should probably be in the form of predictions of results that will flow from choosing the given lines of action that are under consideration. To make these predictions is one important duty of the research worker. The policy maker will inevitably continue to choose among alternatives. Will the research worker aid him in making his choices? The work of the past has not stressed this aspect of tenure research, but a growing demand and recent examples of the manner in which research is aiding policy-makers, suggests that the future holds more than hope for the incorporation of this type of research as an integral part of government.

TENURE PROBLEMS AND RESEARCH NEEDS IN THE MIDDLE WEST[1]

RAINER SCHICKELE
RESETTLEMENT ADMINISTRATION

Land tenure refers to the conditions under which the land is occupied by the operator, be he an owner or a tenant. This term, therefore, comprises the relations between land, tenant and landlord as well as those between land, owner-operator and creditor. In this field of inquiry, the land occupier, the tiller of the soil, constitutes the center of interest, and the inquiry proceeds from this center in three directions: toward the land, toward the landlord or creditor, and toward the community. The efficiency of the agricultural industry as a whole, and the vitality and progressiveness of farm life and rural institutions are determined by the conditions under which the farmer occupies the land.

I shall attempt to point out the problems in the tenure conditions of the middlewest, and specifically of the corn belt, which in my opinion call most urgently for a constructive solution. Time does not permit me to present a detailed description of the tenure situation, and to develop a comprehensive program for research. The demarkation of the problems will indicate the need for research by implication. Emphasis throughout the discussion shall be focused upon certain important principles involved in the tenure problem, principles which should be scrutinized by research and reflected in any public policy of land tenure reform.

1. Attitudes Toward Land

In large parts of the corn belt land is believed to be endowed with two intrinsic virtues: inexhaustible fertility and infallible rise in value. The experience of half a century has inoculated this belief into the minds of farmers and city people. It has formed an attitude which made ownership of land desirable not only for the sake of building a permanent home to be passed on to son and grandson, but also for the purpose of getting rich quick and retiring to town. Many farm houses bear the character of temporary shelter rather than of permanent homes. Many owner-operators and landlords refuse to become concerned over soil wastage. This attitude, a heritage from pioneer days, is a forceful element in the present system of tenure.

There are signs that the belief in the two arch virtues of land

[1] This paper was read at the Twenty-seventh Annnual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

is faltering. In the rolling sections of the corn belt people are becoming disillusioned. Here, erosion moves fast, and land values are not recovering. In 1935 land values in southern Iowa were almost 50 per cent below the 1910 level. In the more level regions of the corn belt, however, people are rubbing their eyes after the nightmares of the post war slump and the recent depression, and are watching with restored confidence the rise in land values since 1933. The message of soil conservation wrapped in Uncle Sam's checks may soon be forgotten.

Younger farmers, receptive to new ideas, are likely, however, to churn recent experiences in their minds and, with almost a full lifetime of farming ahead of them, to develop a different attitude toward land and farm land, an attitude of less exploitative and transitory interest in land. Such a change in the attitude, both of owner-operators and tenants is essential for achieving basic improvements in the tenure system.

We know little about attitudes of people. They are difficult to enumerate and to classify. Some are rational in nature, some are emotional; some are conscious, some subconscious; some are persistent, some ephemeral. But, whatever their characteristics, they determine modes of land use. The knowledge of attitudes of people toward land is extremely valuable in developing land tenure policies.

Some crude attempts have been made to indicate attitudes. Information on "ownership patterns," "intent of ownership," and "types of landlords" is useful to the extent to which the various groups of owners, usually classified according to occupational interests, have distinct attitudes characteristic of each group. Yet, there is hardly an occupational group, perhaps with the exception of real estate brokers and insurance companies, which shows a substantial homogeneity of interests in land. The fact that a business man owns a farm does not reveal whether he holds it for speculation, for permanent investment, or as a personal hobby; whether or not he is dependent upon rent as a major part of his livelihood; whether his background or philosophy is essentially urban or rural.

We have yet much to learn about the various motives for owning or operating land. What are the rational and emotional components determining human behavior in relation to land? Which are inherited from pioneer days; which are conditioned by racial stock and cultural traditions; which have emerged from the rapid commercialization of midwest agriculture; which are reflexes of the hectic experiences of the war boom, the post war slump

and the recent depression? How strong is the aspiration to ownership among tenants, how tenaciously do owners hold on to their equity in land, and for what reasons? What has been and what will be the balance of emphasis between farming as a mode of living and farming as a business enterprise?

I am fully aware of the difficulties involved in obtaining reliable information on attitudes. The common survey and questionnaire technique probably will prove insufficient. We must strain our imagination in order to devise more ingenious methods for gathering information on many important social and psychological aspects of the tenure problem.[2]

I should like to emphasize from the beginning that tenancy problems are concerned primarily with impersonal landlord-tenant relationships, with tenants and landlords who are not family-related, and who are not connected by ties of personal loyalty or other elevating emotions, but who deal with one another on an objective businesslike basis. This eliminates from our consideration most of the family-related tenants and some unrelated landlords and tenants who cooperate sympathetically on the basis of mutual confidence. In high tenancy areas, however, the number of landlords and tenants is too large to depend upon individual adjustments to solve the problems arising out of tenancy. It is this very lack of dependability of enlightened individual behavior which makes laws and certain standards in contractual arrangements necessary in any society. To say that a lease never can be better than the man, and that individual relations are "all important" in the tenancy problem, is dodging the issue.

2. Lease Types in Relation to Land Use

As the attitude of people toward land apparently has ceased to fit the conditions in large sections of the middlewest, the prevailing type of leasing arrangement also is no longer adequate to meet economic and physical requirements of farming, particularly in the rolling parts of the corn belt. The emphasis in the farming system has been and still is shifting from cash grain to livestock production, and the need for more conservational crop rotations is becoming more and more urgent. The crop share lease, most commonly used in the corn belt, is obstructing these desirable land use adjustments; first, because hay is not a cash crop and pasture forage cannot be shared; and second, because the cash rental rates on grassland under crop share leases tend

[2] See M. M. Kelso, A Critique of Land Tenure Research. *Journal of Land and Public Utility Economics*, November 1934.

to be unduly high since practically the full impact of the bidding of tenants for farms is focused upon the cash rent rates applied to only a portion of the total farm acreage. This holds especially in areas with a surplus of tenants looking for farms until late in winter. The division of crops is determined by custom and does not reflect the relative strength of the parties in the individual bargaining process. Both these characteristics associated with the crop share lease tend to minimize grass and livestock in the farming system.

While the stock share lease, as a minor lease type in the corn belt, is deliberately chosen by landlord and tenant to fit livestock farming, the crop share lease is indiscriminately accepted by landlord and tenant regardless of the desirable farming system. Hence, the crop share lease tends to force the farming system to adapt itself to the leasing arrangement even if the physical characteristics of the area require pasture and hay crops to occupy a prominent place in the land use pattern. The cash rent lease neither favors nor discourages any specific enterprise. The cash rent tenant is in a position similar to that of an encumbered owner-operator. As soon as he can no longer meet his fixed cash rent obligations, or for some other reason anticipates the loss of the farm, he starts to exploit the land and neglect the improvements.

The crop share lease is least adaptable to desirable agricultural adjustments on rented land, and its use should perhaps be restricted to farms suited to strictly cash crop farming. The cash rent lease is best adapted to the advanced stage of commercial agriculture in the midwest, perhaps with the exception of areas with high climatic risks. Here, the cash rent could possibly be adjusted to some income index based on average production times price in the local area. Regardless of which of these lease types is to be adapted to any given set of physical and socio-economic conditions, it should be remembered that without a reasonable degree of security of tenure and opportunity for the tenant to exercise his own initiative, no efficient and conservational mode of land use can be expected to evolve.

3. *Security of Tenure and Land Use*

Recent studies[3] reveal that tenants who are family-related to their landlords tend to follow land use practices very similar to

[3] See Rainer Schickele and John P. Himmel, "Economic Phases of Erosion Control in Southern Iowa and Northern Missouri," *Iowa Agr. Exp. Sta. Bul.* 333; and, by same authors, "Problems of Land Tenure in Relation to Land Use Adjustments," Land Use Planning Publication No. 9, Land Utilization Division, Resettlement Administration, December, 1936.

those employed by owner-operators, while heavily encumbered owner-operators, at times, exploit their land almost as ruthlessly as do the "commercial" tenants who are not related to their landlords. The explanation lies largely in the different degrees of security of tenure. The "family-tenant" is, like the average owner-operator, reasonably well assured of his occupancy of the farm and is naturally interested in the maintenance of its productivity. The non-related tenant, like the heavily encumbered owner-operator, does not know whether he will be on the same farm a few years hence, and he is primarily interested in drawing out of the farm during the current year as much as possible, regardless of its future productivity.

There is, however, an important difference between the behavior of the encumbered owner and the tenant. The exploitative pressure upon the soil resources on heavily mortgaged farms is intermittent, is reduced in periods of good prices when the sheriff is out of sight, and intensified in periods of depressed prices when the sheriff is just outside the door; the exploitative pressure on many rented farms is chronic, regardless of the price situation, since the operator's tenure is chronically insecure.[4]

The exploitative effect of insecure tenure on rented land is in some cases checked by the landlord's supervision of the tenant's management; in others it is enhanced. Depending upon the landlord's attitude toward and knowledge of his farm, in some cases the landlord prevents his tenant from exploiting the land too severely, in others he forces the tenant to exploit the land to the limit. The practice of leaving the supply of grass seed and lime and the control over the crop system to the landlord represents substitution of landlord's supervision for tenant's initiative.

This substitution is incomplete and unsatisfactory, as it is clearly revealed by statistical data and observations of land use practices on rented land. Many landlords are incompetent in matters of farming, and many tenants do not abide by the lease provisions intended to safeguard the land, as these provisions are distinctly contrary to their short-time interest in the land. The enforcement of managerial lease provisions under conditions of instable tenure is difficult, and is more likely to lead to frictions and rapid turnover of tenants than to conservational farm-

[4] It is interesting to note that European students of land tenure distinguish between three phases in the management of the farm under a long-term lease: (1) the "investment phase" during the first few years, (2) the "normal production (or rental) phase" during the main period of the lease, and (3) the "liquidation phase" during the last two years of the term. See Karl Brandt, Die Lehre von der Pacht, in "Handbuch der Landwirtschaft," Paul Parey, Berlin 1930, page 550. A major part of the rented land in the corn belt is farmed continually in the "liquidation phase" of management.

ing methods. Security of tenure is a better safeguard for the land than is landlord supervision.[5]

To illustrate: the suggestion is frequently made that a good lease should provide for a certain minimum amount of crop land to be seeded to grass. This represents a managerial provision designed to safeguard the land from being overcropped. If this provision is part of a one-year lease without continuation clause, and possibly with a high cash rental on grassland, it is hardly enforcible without seriously depressing the tenant's economic status, as the tenant cannot afford to keep sufficient livestock to profitably utilize the grass. Even if the landlord furnishes the grass seed, the tenant may sell the seed rather than seed it, and take chances on being removed.

On the other hand, if an automatically continuing lease provides for the compensation of unexhausted soil improvments, such as grass seedings and lime applications, it will be in the interest of the tenant to keep the land productive, and he can afford to do the seeding and the liming on his own initiative. Such tenurial provisions would render a stipulation of a definite minimum grass acreage on the crop land applicable, yet perhaps superfluous provided the tenant is a competent manager. Managerial competence, however, can hardly be replaced by lease provisions.

Some people see a solution of the tenancy problem in the establishment of professional farm managment services for landlords. Such services, being employed by the landlords, may increase the effectiveness of landlord supervision in safeguarding land productivity, but may do so at the expense of the tenant's freedom of management and his standard of living. Professional management services as the major part in a tenancy system which is as inconsiderate of the tenant's interests as is the present system in the corn belt, is likely to produce social disadvantages outweighing its technical advantages.

Research work directed toward the development of better lease contracts should, I believe, be focussed upon tenurial rather than managerial provisions. The latter may supplement, but can never replace the former.

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[5] This problem should not be neglected in developing a long-time soil conservation program. Roughly speaking, such a program on owner-operated farms has to compensate the owner for immediate and temporary sacrifices involved in changing his farm organization; on tenant-operated farms the program has, in addition, to compensate the tenant for lack of security of tenure and for inadequacies in common leasing arrangements, if it is to achieve comparable results without working hardships upon the tenant. The soil exploitive character of our tenancy system cannot fail to seriously diminish the effectiveness of the soil conservation program on rented farms, unless the program definitely provides for improvements in the leasing arrangements.

4. *Time Provisions in Leases*

When a tenant rents a farm, he agrees to pay a certain rent, to keep up improvements, to grant the landlord a lien on all his personal property, and in return he obtains the use of the farm for one year, possession of the farm to be surrendered at the expiration of the lease upon thirty days' notice.[6] How efficiently can he apply his managerial ingenuity, his labor and capital, under such conditions? He can grow corn and oats and raise hogs. All his capital must be in a liquid or movable form by the end of the year. It goes without saying that the cultural and social development of farm life is equally handicapped under such tenure arrangements.

Security of tenure and opportunity to exercise initiative and develop managerial competence on the part of the tenant are cornerstones of an efficient tenancy system, which are deplorably lacking in the corn belt. In January, 1935, over one third of all tenants occupied their farms for only one year or less in all middle-western states except Nebraska. The average length of the tenant's occupancy of a farm is about four years in Iowa. It is, however, not the length of past occupancy, but of anticipated future occupancy which determines the farming methods of the tenant and his interest in land and community. Regardless of how long a tenant stays on one farm, if he does not know before fall or winter of any year whether he can stay for the next season, he will tend to keep his assets liquid, to say nothing of liquidating some of the landlords assets, too. This behavior cannot fail to depress the long-time aggregate effeciency of the agricultural enterprise, particularly in areas of high tenancy.

Similarly, the permanent improvements on rented farms remain under-developed. The tenant is not interested in good barns, as he cannot, under a straight one-year lease, keep enough livestock to make profitable use of them. He is not willing to pay the rent for an extra good set of buildings, and consequently the landlord is not interested in furnishing it. Many rented farms in the corn belt are definitely under-improved with respect to requirements of the farming system which would be best adapted to the land and general farming conditions.

Long lease terms are unpopular in the corn belt. This is probably not because of difficulties of rent adjustments to price fluctu-

[6] It is true that many tenants know by September whether they can stay for the next year. But this knowledge is often "unofficial," and the landlord is not bound legally to renew the lease after a certain date has elapsed. In areas of keen tenant competition for farms the lack of definite continuation provisions and of a definite date of notification inserts a strong element of uncertainty in the tenancy system.

ations, since the majority of leases are share leases; it is more likely that the unpopularity of long-term, that is three to five year, leases results from the pioneering spirit and customary mobility of farmers, from the attitude of landlords and tenants toward the land, and in many instances, from their transitory interest in the farm. The landlord wants to be free to sell the farm any time. The tenant wants to move to a better farm rather than to improve his present one, which is only natural under prevailing tenure arrangements. Out of this transitory interest in the farm on both sides, a mutual distrust develops between landlord and tenant which again increases the unpopularity of long lease terms.[7]

Discussions on tenancy problems with many farmers in Iowa lead me to believe that the reluctance to enter a three to five year year lease is much stronger on the landlord than on the tenant side. This would support the view just expressed, that it is not the fixity of rent which renders the long-term lease undesirable, but the general instability of land tenure relations and the speculative element in the landlord's intent of ownership which accounts for the rareness of long-term leases. It would be greatly worthwhile to gather more systematic information on the workings of three to five year leases.

An *automatic continuation clause* in a one-year lease with an early date of notification implies that the lease shall remain in effect over an indefinate period of years until notice is served by either party, while the straight one-year lease explicitly states that it expires at the end of the year. The general adoption of the automatic continuation clause with at least six months' notice as a standard lease provision required by law would find strong support among the farmers. Two-year leases with one-year period of notification are now used only in a few exceptional cases, but deserve serious attention and should be widely tested as they promise to be peculiarly well adapted to the corn belt where most of the grass seeding is done in the spring.

To render such provisions effective, it will probably be necessary to establish by law standard rates of penalty to be applied if either party disregards the time provisions of the lease, perhaps along the lines of the "disturbance" payments under the English tenancy laws.

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[7] It should be noted that "long-term" leases refer, in this discussion, to leases running for 3 to 5 years, instead of just one year. In Europe, such leases are definitely classed as short-term leases. In Sweden, the shortest lease term recognized by law is 5 years. The proposal of long-term leases in the European sense, covering a period of 10 years or more, would be considered preposterous in the corn belt.

5. The Tenant's Opportunity to Exercise Initiative

Increasing the security of tenure on rented farms cannot fail to stimulate the tenant's interest in the preservation of land and improvements. Yet, it is not sufficient for a full development of his managerial capacity.

As the country grows older, the landlords, as a class, become more removed from the daily realities of farm life. Moreover, these realities are becoming more complex. The expansive phase of agricultural land settlement is over. Soil conservation requires more carefully balanced rotations. Most agricultural adjustments to changes in demand will occur in the intensive margins of production, that is on the land now in farms. Farming in the corn belt is becoming a more highly skilled occupation requiring more differentiated managerial abilities. Remote control of management through landlord supervision will no longer suffice to lead agriculture toward higher planes of efficiency. As long as substantial areas in the corn belt continue to be operated by tenants, the development of an alert and progressive class of tenants is of vital importance. This holds whether tenancy is concieved as a permanent tenure status or as a rung in the "agricultural ladder."

Under present leasing arrangements the landlord has complete control over all permanent improvements on the farm, and substantial control over semi-permanent soil improvements, such as seedings of perennial grasses and legumes and applications of limestone, and over the general type of crop system to be followed. The tenant cannot, on his initiative, add to the improvements; in fact he cannot even provide materials for necessary repairs, since this would give him an equity in the farm which is not recognized under his lease. He depends entirely on the willingness and ability of the landlord to furnish any materials that go into the fixtures on the farm. Nor can the tenant seed alfalfa or spread limestone at his own expense, since he loses his claims to the fruits of his effort in case the lease is not renewed. If he builds up the productivity of the farm, he increases the value of the landlord's property without being entitled to any compensation for his contributions. Nothing prevents the landlord from charging rent for improvements in land and buildings the tenant has made. The strangling effect of these tenure arrangements on the tenant's initiative can hardly be overemphasized, particularly since it has been almost completely ignored by commentators on tenure conditions in the Middle West.

The principle of compensation for unexhausted improvements

recognizes the right of the tenant to accumulate an equity in the farm he occupies, and protects his equity from the seizure of the landlord, at the expiration of the lease, without due compensation. The most important contribution this principle can make to the improvement of tenure conditions in the Midwest is to release pent-up managerial energies, to provide the tenant with an opportunity to exercise his initiative and to plan his farming program ahead beyond the date of expiration of his lease.

The application of the principle of compensation involves two technical problems: (1) certain limitations must be placed upon the improvements the tenant may make; and (2) some efficient method of impartial value appraisal of the improvements must be developed.

The first problem is relatively simple to solve by classifying improvements into two or three groups requiring different procedures. For instance, the first group may comprise semi-permanent or minor improvements which the tenant may make without consent of the landlord, such as liming the soil, repairs on buildings and small additions, new fences; the second group may include all other improvements which the tenant may make only with the consent of the landlord. Similar classifications are in common use in England and other European countries.[8]

The second problem is more difficult to solve. It requires the development of an adequate appraisal technique and the education of a number of farmers as competent appraisers who may be called upon to determine the value of the unexhausted parts of improvements the tenant made.[9] Such impartial appraisal service could perhaps best be rendered by local farmers, assisted by educational and research institutions. In the majority of cases, these appraisers would help tenant and landlord to agree to a fair valuation and to settle any disputes out of court by submitting to arbitration.

The principle of compensation for unexhausted improvements with its implications is new to farmers in the corn belt. Yet, its recognition is essential if tenancy conditions are to be improved in the interest of agricultural progress. Its application may, in the beginning, perhaps be confined to semi-permanent soil improvments and building repairs, and gradually expanded as the tenant's security of occupancy increases and his managerial initiative develops.

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[8] See Marshall Harris, Agricultural Landlord-Tenant Relations in England and Wales. Land Use Planning Publication No. 4. Resettlement Administration.

[9] In England most counties have an "association of agricultural valuers," and fairly definite schedules are being used in evaluating the more common improvements involved.

Much research is urgently needed to work out proper appraisal methods for the specific purpose of evaluating unexhausted improvements. In ten or twenty years from now the training of men for the evaluation of unexhausted improvements may become an important task of the Extension Service in the Middle West. We can learn much in this field from the experiences of the European countries.

Policies designed to improve landlord-tenant relationships in the Middle West should move mainly along three lines: (1) recognition of the principle of compensation for unexhausted improvements, of the right of the tenant to accumulate an equity in the farm he is operating; (2) increase in the tenant's security of occupancy, through general adoption of automatic continuation clauses with a reasonably long period of notification (long-term leases are too unpopular for the time being, and even they should have continuation clauses); and (3) development of a continuous and effective educational program, utilizing existing channels as well as opening new ones. I believe that security of tenure and the tenant's right to accumulate, within limits, an equity in the farm, are prerequisites to better management on rented farms, and the majority of tenants are capable of becoming reasonably good managers. Tenants in the Middle West, as a group, can hardly be judged inherently inferior to owners in intelligence and potential managerial ability.

There are undoubtedly many poor tenants who should be eliminated from farming, as there are many poor landlords who should not own land. The present tenancy system is apparently quite inefficient in eliminating the unfit in either group. The indicated changes in landlord-tenant relations are likely to enhance rather than hamper a desirable selective process in this field.

6. The Function of Tenancy in the Tenure System

Some people believe that tenancy is inherently bad; that the solution of our tenure problems lies not in improving tenancy, but in abolishing it; that ownership of the land by the operator is the only sound foundation upon which rural life can prosper. Tenancy performs some rather significant functions in the tenure system.

The most important function of tenancy is to enable a young farmer to establish a life of his own long before he has accumulated enough savings to purchase a farm. This function represents the famous tenancy rung in the agricultural ladder toward ownership. If the landlord is well versed in the art of farming he

may contribute to the development of the tenant's managerial abilities, and may share part of the risk involved in the operator's inexperience in management. This educational function is quite widely exercised by landlords whose tenants are family related to them. In general "family-tenancy" as a step in the inheritance transfer of farms is, according to most relevant criteria, essentially equivalent to owner-operatorship and does not engender serious problems in landlord-tenant relations.[10]

During the tenancy status, it is relatively easy for the operator to adjust farm size, land quality and environment to the needs of his family and to his preferred farming system, by moving to a farm better suited to his purpose. It is important to note, however, that in areas of high tenant mobility the majority of moves are precipitated and represent waste of energy and assets, while deliberate purposeful moves require security of tenure for the operator both on his old and on his new farm.[11] Security of tenure, as conceived in this discussion, does not imply fixity of occupancy. Instead, security of tenure is believed to be essential in order to assure a type of tenant mobility which is purposeful in character and represents adjustment rather than waste. This holds not only with reference to the ascent, but also to the descent on the agricultural ladder. Tenancy, in order to serve as a testing ground for managerial competence, must admit of development of managerial initiative before it can effectively eliminate the unfit.

Finally, tenancy as a permanent status enables the operator to invest his savings in operating capital and improvements rather than in land, if his tenure is reasonably secure and his equity in the farm improvements is protected. This gives him an advantage over the encumbered owner-operator, provided that his rent amounts to less than do mortgage interest, amortization and taxes paid by the owner.

This sketchy view of the positive elements in tenancy as a form of land tenure may suffice to indicate that tenancy, if its arrangements are properly adapted to its desirable functions, can serve a constructive purpose in the tenure system.

Considerable research is needed before we will be able to draw a more definite line between socially desirable and undesirable forms and proportions of tenancy. What are the effects of char-

[10] In 1930, Iowa had the lowest percentage of tenants related to landlords, that is 32 per cent, of all midwestern states, while this percentage lay roughly between 40 and 60 per cent in most of the other states. The wave of foreclosures and the increase in total tenancy since 1930 probably reduced these proportions considerably throughout the region. In Iowa, about 23 per cent of all tenants are estimated to be family-related to their landlords in 1936.

[11] *Cf.* J. T. Sanders, The Economic and Social Aspects of Mobility of Oklahoma Farmers. *Oklahoma Experiment Station Bulletin 195*, August 1929.

acter and extent of tenancy upon the general efficiency of agriculture in the respective areas? To what extent is tenancy a permanent tenure status in any given region, for what reasons and with what results? To what extent is tenancy a testing ground for managerial competence, and to what extent is it a breeding ground for incompetence? How much does the average non-related landlord actually contribute to the managerial education of the tenant? Tenure histories of farms as well as of farmers should be analyzed in the light of functional relationships between land, men and community.

7. The Perils of Farm Owner-Operatorship

If a farmer owns the full equity in his farm, his tenure is highly secure. Fluctuations in land values and farm product prices do not specifically affect his tenure status. He is a "free-holder," in full command over his property and the income derived therefrom. It is this form of ownership that represents the highest rung in the agricultural ladder and the goal envisaged by proponents of policies designed to abolish tenancy by converting tenants into owners.

Although this type of tenure is unquestionably advantageous in many respects, it is not realizable as a permanent tenure status for a great majority of farmers under a highly commercialized agriculture, and under conditions of a high birth rate of the farm population. As long as mortgage loans furnish the cheapest source of agricultural credit, and as the average farm family is larger than is necessary to maintain itself, and as the heirs have, by custom or law, equal claims in the family heritage, the status of freehold can hardly be permanently maintained on any given farm.

Applying this principle to the tenure pattern of the corn belt it is easy to see that even if, through some magic, all farmers, owners and tenants alike, were made freeholders of their land overnight, a large number of them would not maintain this status very long, and even as soon as 10 or 20 years later a considerable part of the land would be mortgaged, and another part operated by tenants. This is essentially what happened after the Midwest was settled under the preemption and homestead laws.[12]

In Iowa, only 38 per cent of all owner-operated farms were free of mortgage in 1935, and only 15 per cent of all farms were operated by free-holders. Almost two thirds of all owner-operators do not have a full equity in their farms. This proportion probably

[12] See B. H. Hibbard, History of the Public Land Policies in the United States.

tends to increase toward the northwest and to decrease toward the southeast. Suffice it to say that farm real esate owned by the operator is burdened with a heavy debt load throughout the Midwest.

Turning to the status of the encumbered owner-operator, it is obvious that his security of tenure depends upon two interrelated factors: the degree of encumbrance, and the relative stability of the price level. It is these two factors that are responsible for the perils of farm ownership. They deserve full deliberation in formulating a public policy of tenure reform which sets out to increase owner-operatorship, particularly since long-term mortgage credit furnishes the chief implement for such a tenure policy.

Regarding the ownership aspects of the tenure problem in the Midwest, the relationships between land values, mortgage indebtedness and farm income have been more strained and unbalanced than in any other region of the United States during the last few decades. The west North Central states show by far the highest foreclosure rate in the Union throughout the depression years.[13]

Wide fluctuations in land values inevitably produce serious maladjustments in the tenure system. Rising land values retard the acquisition of an adequate equity in the land by the operator, engender excessive mortgage burdens, and stimulate land speculation; declining land values precipitate liquidation through forced sales. Both phases in the cycle result in increasing tenancy and reducing security of tenure in general.

It is true that a more stable price level would tend to stabilize land values, but in the past land values have shown an exaggerated responsiveness to changes in prices, considering the long-time character of investment in farm real estate. If we can smooth the fluctuation in the general price level, well and good, but beyond that, or in the meanwhile, it is highly desirable to reduce the amplitude of land value fluctuations. The development of a scientific method of land appraisal by which private and public lending activities should abide; legal protection of the owner's equity from foreclosure in case the default in payments is caused by forces beyond the control of the borrower; taxes on speculative profits from land transfers—these are only some suggestions of possibilities in controlling land values which should be fully scrutinized and, if found feasible, be made an integral part of a tenure reform program.

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[13] See B. R. Stauber and M. M. Regan, The Farm Real Estate Situation, 1934-1935. U.S.D.A. Circular No. 382.

Here lies an abounding field for research. What are the effects of land value changes upon the tenure system, upon extent and character of tenancy and owner-operatorship? How does a rise and a fall in land values influence extent, manner and speed in which the agricultural ladder is climbed up or down? How does land speculation affect the tenure system? Who buys and who sells land during various phases of the land value cycle, and under what terms and motives? What policies should insurance companies follow in unloading their farms, and how could public agencies assist in affecting a socially desirable sale policy of corporate land holdings? How could land appraisal methods be improved and unified and required to be used by all lending agencies in the field? How should our foreclosure laws be modified to curb speculative foreclosures and reduce disruptions in the tenure of land in periods of crisis?

8. Two Roads Leading Toward One Goal

A public policy is a compromise between a rational plan and the psychology of political pressure groups. The success of a public policy is measured by the balance struck in the compromise.

A rational plan for a land tenure system in the Midwest would probably reserve a prominent place for tenancy in the tenure system mainly for three reasons (1) land values are high, and more owner-operatorship would inevitably increase to a precarious weight the already heavy mortgage burden; (2) there is little prospect for a relatively stable price level for the next few decades which intensifies the danger involved in an over-loaded debt structure; (3) farming is undergoing important changes, in response to the growing need for soil conservation and to long-time changes in the demand situation, taxing the managerial capacity of the farmer. The risk and temporary sacrifice involved in these adjustments could at least in part be shared between operator and landlord.

Such a plan, therefore, would focus the emphasis upon improving landlord-tenant relationships in the direction of greater security of tenure and better opportunity for the tenant to exercise initiative. This would correspond to the course England has taken in solving her tenure problem.

The psychology of farmers in the Middle West seems to favor definitely an increase in owner-operatorship, through public subsidies in the form of cheap long-term loans available to operators only. This direction would correspond to the course Denmark has taken in solving her tenure problem.

Where will the balance be struck? The desire of the farmer to own his farm and home is as real as is his mortgage debt. The Irish farmer was not content with tenant rights; he fought until he obtained ownership of land.

If the government subsidizes owner-operatorship, it does so for the purpose of increasing security of tenure and economic opportunity for the tiller of the soil. If it moves too fast and undeliberately in this direction, it cannot fail to defeat the purpose. A relatively small differential in the interest rate, a reasonably high down-payment on the farm, and a careful selection of the applicants, would constitute effective safeguards in such a policy.

Under no circumstances should we neglect, in our zeal to convert tenants into owners, to improve the tenancy arrangements, since an efficient tenancy system provides the best preparation for successful ownership. Nor should we neglect to protect the owner's equity from foreclosure in periods of crises, and to reduce land value fluctuations to a minimum, since the land-value rise mortgage debt-foreclosure cycle is self-generating in character and keeps land tenure conditions persistently in maladjustment. This responsibility of controlling land values and lending activities is implicit in a public policy inducing farmers to buy farms, otherwise such policy could easily intensify land value fluctuations, insecurity of tenure, and thereby defeat its purpose.

Much will depend on the attitude and group behavior of landlords and tenants. Unless landlords will grasp the advantage of more secure tenure conditions and greater freedom of management for the tenant, and unless tenants, even if they aspire to ultimate ownership, grasp the advantage of a more reliable and efficient tenancy rung in the agricultural ladder, the sails may be set for a gigantic venture into "shoe-string ownership" of land.

TENURE PROBLEMS AND RESEARCH NEEDS IN THE SOUTH[1]

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Introduction

The topic which has been assigned me, namely, "Tenure Problems and Research Needs in the South" is much too large to be adequately treated within the scope of this paper, since "tenure problems" alone comprehend all the conditions, terms, or manner by which any farmer holds the land which he occupies. In them are embraced practically all the legal aspects of land holding, the credit problems of financing, and the farm management problems of operation. Yet, in spite of the volume of tenure problems, they are secondary, both in magnitude and importance, to research needs in the South, chiefly because *problems* can be only vaguely visualized, and viciously handled, in the absence of the light afforded by thorough research.

In order to focus this discussion, I shall take the liberty of omitting the broader implications of both "tenure problems" and "research needs" in the South, and touch only upon fundamental issues now in the limelight of public opinion which relate directly to the various stages of progress of operators along the traditional, but much abused and over-worked, agricultural ladder—one which, by the way, in recent years, we agricultural economists have been hard put to decide whether that ladder descends to a cellar, lies flat on the ground, or possibly leads up to something, and in that something we are not sure whether, in the darkness, we see farm *equities* or only *encumbered indebtedness*. But not being sure which it is, we call it ownership, and you can take your choice between emphasis on *equity* or *encumbrance*. Of course, most of us having seen barnyard ladders leaning up to something, infer that the agricultural ladder stands up. The inference is no better than Classical economic doctrine—it was good so long as you granted the major premise.

But we agricultural economists are not going to get far in this country on the road to the solution of tenure problems, or the obtaining of enlightening research information, until some of our major assumptions of former years are dumped into the trash can where they rightfully belong, and a new approach established. This statement does not apply to all former assumptions, but to

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

enough of them so that those which remain will represent at least an approach to unanimity of opinion among ourselves as to what is a tenure problem, either on the part of owner operators or tenants, and how and what to research for.

I am tempted to say that the biggest tenure *problem* in the South today is to recognize one when we see it, and the biggest *research need* is to know how and what research to do. I shall now try to support my statements by addressing myself to these two problems: first, tenure, and second, research.

Relative to the first point, most of us for so long have assumed that the agricultural ladder leans up that we have considered the chief tenure problem to be tenancy, and its final solution to be ownership. The problem, thusly considered, is how to make owners out of tenants. Ownership, however, is merely a statistical position to be achieved by many in high positions of authority in this country, without consideration of size of farm, equity *vs.* encumbrance involved, or whether the obligation to pay interest, taxes, and other fixed charges, exceeds that to pay rent. This is the attitude chiefly of those who develop nausea at the idea of a farmer having to pay rent, and is represented largely by the Agrarian group and their associates. Swapping tenancy for encumbered ownership is a change in statistical position, to facilitate tabulation and classification by the United States Census Bureau, and does not represent a change of economic status. The technique for effecting the change is by swapping off one set of liabilities for another, which does also change a tenant's legal relationship to the land, but not necessarily his economic status, and therefore his welfare.

The *problem,* therefore, is not how to change the statistical position of farmers in the Census publications, but how to improve their economic status, i.e., increase their equities in land and equipment. If all tenant farmers in the South today were made encumbered owners tomorrow they would not be necessarily better off. This latter observation is timely especially in view of the many wide appeals for home ownership of small-scale, semi-subsistence farms where the purchaser is to be burdened by an unproductive over-head investment from two to four times the value of the land. Such illusory schemes may meet the requirements of a good showing in home ownership by the Census Bureau, but it can by no means meet the hopes of those who are struggling for a tenure system which records its results in farm equities and larger individual family net incomes.

Therefore, another aspect of the present problem of improving

the economic status of small-scale owner operators and tenants in the South is that of how to increase farming incomes. The problem is a difficult one, indeed, else with the vast corps of workers on the problem, it would have been solved years ago. In my opinion, this end can be achieved only through (1) an increase in the size of individual farms; and (2) the employment of a more efficient farming technique on the part of both owner operators and tenants. The achievement of these objectives will necessitate changes in the whole social structure of the South, which, of course, can be accomplished only gradually. But developments in the past few years, with emphasis on part-time farming, peasant proprietorship, and subsistence farms, along with the Rural Rehabilitation program of utilizing Georgia stocks drawn by diminutive Jersey steers, and the Rural Resettlement's partial advocacy of one-horse farms, have been achieving results in the contrary direction. I, therefore, am frankly of the opinion that probably fifty (50) per cent of most agricultural thinking (if certain mental gyrations can be thus dignified), and of most reform programs in the South in recent years, are largely devices for perpetuating poverty, or possibly even lowering the economic status of the bottom half of the tillers of the soil. Of course, small-scale peasant proprietorship might give an added element of security over small-scale commercial farming, but few have taken the time to analyze at what economic level it will be achieved. One writer admits that the farmer's security will be bought at the price of a lower standard of living, and the satisfaction of fewer wants, but suggests that his diminution of economic goods might be compensated by more leisure time in which he could bask in the balmy atmosphere of his small holdings and write odes to field mice. But such antics won't satisfy the mortgage holder, or pay one's taxes.

Presumably, encumbered farm homes will eventually have to be paid for, and the mere act of assuming added obligations does not in itself mean increased capacity to pay. An observation appropos at this time is the fact that small-scale, encumbered owners are just above the border-line of the property-less class, that share tenants are a bit nearer this class, and the great mass of cropper tenants in the South are in the property-less class, in the main. Tenancy, and also small-scale encumbered ownership, therefore, have been caused, and are ever perpetuated by, institutional factors which made for differences in individual wealth and income. Presumably, if tenants were propertied

people, they would instead be home owners. Likewise, if absentee landlords were property-less individuals they wouldn't be holding land to rent to others. The tenure problem, therefore, is bilateral, rather than unilateral—it is not just the problem of tenancy, but it is also the problem of absentee ownership. In the final analysis, then, tenure problems are both cause and effect of differences in wealth and income. Their solution logically rests upon institutional changes which will increase, first, individual farming incomes, thereby making possible the building up of farm equities, secondly, increase the farmer's knowledge of the use of good technology and approved farm management practices. However, *equities* can be built up in operating equipment as well as in land, and farm incomes can possibly be increased more quickly in the South by improved technique than through encumbered ownership of poor equipment, and a small body of poor land.

An interesting observation in this connection is that the highest percentage of ownership frequently occurs on the poor land, while tenancy tends—but not without exceptions—to concentrate on the better lands, yet equities and the standard of living of small-scale owners may be low in comparison with those of tenants on better grades of land. The issue is largely equipment *versus* land ownership.

The tenure problem, then if we are not to discard altogether our traditional views of the agricultural ladder—is to provide a ladder to larger farm equities and incomes, whether these be for owner-operator, or tenants, and not a ladder which leads to a customarily vaunted statistical position that involves no consideration of economic status. Ownership in the tenure literature of the United States has traditionally been a legal and not an economic concept. Of course, home ownership of economic-sized, unencumbered farms is a rather enviable position, but one which is achieved either through past accumulation of wealth or superior earning capacity, and not because a wish is father to the thought, or because legally a farmer controls the equity of someone else, upon which he must pay interest and taxes.

The means to present objectives, namely, larger equities, can start with an ill-advised mass movement into small-scale encumbered ownership, or with an improvement of the economic status of tenants as such. The choice of these means will be determined largely by one's individual viewpoint of the effect of farm technique, size of farm, and farming systems, on individual farm in-

comes. Personally, I think the wretched condition of most tenure classes in the South—small owners as well as tenants—arises not out of the fact that the majority of them are tenants *per se,* but because they are struggling, and partly with the advice and good wishes of their instructors, to fit into the complexities of a modern commercial economy with the attitudes and techniques of a mediaeval self-sufficient economy.

Since from sixty to seventy-five per cent of all Southern farmers are tenants, and many of these in the low-bracket cropper class, we agricultural students of tenure problems can well devote more attention to how to teach croppers, and low-level share tenants, to mount higher rungs in the tenancy segment of the agricultural ladder, and less to the abolition of tenancy, which is part and parcel of our system of private property, as well as the complex of other institutions conducive to differences in wealth and income. Furthermore, advocacy of universal ownership is barren without suggestions as to how it can be achieved short of outright gifts of economic-sized farms, or the establishment of subsistence homesteads, perhaps more degrading than tenancy necessarily must be.

I wish to elaborate somewhat on the foregoing point with reference to the improvement in the lot of the great horde of Southern croppers. They originally became croppers because they were poor, and they have continued poor largely because they have been croppers. These tenants pay, usually, for the use of the farms they till and such improvements as are on them, one fourth of the cotton they produce. They then pay an equal amount in addition for the use of operating equipment which they use. In other words, for the use of a tiny lot of dilapidated tools, one mule, some seed, and some alleged management, they pay an amount equal to the value paid for the use of the entire farm they till. The sum exacted for the use of these materials would pay their purchase price each year over and over for the entire period of their usefulness. But for a few to learn their lesson and buy their own tools and teams would be perhaps useless unless the cropper system were largely broken down at one stroke, in order that land would be available under the share form of tenure. Then, if program planners and the Farm Credit Administration are really interested in ascent of the agricultural ladder, fruits of their labor in this field are unmistakable, while a program of widespread ownership under present conditions is a doubtful venture, indeed. If all croppers who desire to do so could be provided with sufficient credit to purchase their own tools and equip-

ment, and operate on a share basis, land would have to become available on these terms of tenure, or be sold to owner operators. Moreover, as a venture in the advancement of government credit, the risks involved would be far less than accompanies many other forms of government credit, since if the cropper now pays for its use the value of his equipment each year, he could easily pay for it over a period of years, and have a neat sum left with which to better his standard of living, and also to expand the scale of his operations, thereby increasing his net income.

Immediate gains from such a program would be to break up the plantation system of the Old South, with its accompanying evil, exploitation, in its various forms. Presently, land values would have to fall, when less milk came from contented cows, and potential owners who had been thus enabled to achieve a higher economic status could now compete for land at a price based more nearly on its actual productivity, rather than at prices based on such productivity plus the added increment derived from the exploitation of the already impoverished mass of cropper tenants.

By way of summary, I should say that the intelligent thing to do is to attack the tenure problem where it is most acute, and most susceptible to treatment. Probably the best way to treat tenancy problems is to accept tenancy, as an institution, but give it some refinements through improvements in landlord-tenant relationships, thereby leading to greater security of tenure. To condemn the institution of tenancy is merely to condemn the economic system which produces poverty. Such activity may be good intellectual exercise, but tenure problems in the meantime go on unsolved. But the problem of poverty in the South is a multi-headed monster that cannot be dealt with by a single blow of the reformer's axe.

But there are vulnerable points of attack. Yet I fear most of us prefer to talk much about the impractical and unattainable objectives in land tenure problems, rather than deal first hand with the immediate soluble problems evident before us, lest we provoke the wrath of vested interests by action rather than talk. Most reform programs as revealed in the literature on tenancy problems reminds me of the actions of a bunch of ducks around a coop of feed which they cannot get to—they do a lot of quacking, but don't suggest anything to do about it.

The limitations of time now require that I pass from some fundamental issues in the problems of ownership *vs.* tenancy, and examine briefly the problems of tenancy.

To the question, What are the problems of tenancy? among agricultural economists generally, and of the South in particular, there is less unanimity of opinion, perhaps, in their answer to this question, than on problems of ownership. Generally speaking, agricultural economists of the South are divided into two main schools of opinion regarding tenancy; first, those who are convinced that the chief problem of tenancy is tenancy itself. This would abolish it at almost any cost—they don't seem to like its more favorable aspects any better than its less favorable ones. This point of view is probably best represented by the agrarians and neo-agrarians. To them, apparently, encumbered ownership at its worst is better than tenancy at its best. To one who adheres to this point of view, the solution is abolition, by one means or another. No research in connection with the problem is necessary because the truth has already been arrived at.

The other group, accepts in a greater or less degree, tenancy as an institution, but one about which they seem to think little can be done, especially for people who couldn't get along without the managerial ability of landlords, a service which usually they don't get, anyway. But this latter group is interested in research. They want to know all about the deportment and conduct of tenancy. They watch it as if it were a step-child, and a complete biography of tenancy is available for every section of the country. These economists know by sections of the country how much it was in 1880, and how much it is now, what rate of growth it made by quinquennial and decennial periods; and how it differs in habits and style of dress in countries of Europe as compared with those in America. We know when it went up, when it went down, that it moved west, that it went back east, that it increased here, and decreased there. We also know how much of it is black, white or brown, the ancestry of the tenants, the size of their family, the number who belong to cooperative associations, et cetera, but, after all, we know little if any more about tenancy than we did in 1880. Facts pertaining to the above items are not about tenancy; they are merely the tools with which we should work to find out something about the institution of tenancy.

What we need to know, and be more or less agreed on that, is what is the fundamental economic and social origin of the *institution* of tenancy, what is its place in, and connection with, a system of private property, with existing differences in wealth and income. We have talked glibly about historical lineage, but that explains nothing until the factors which made history what it is—especially slavery and its hangovers as forerunners of

Southern tenancy—are themselves explained. Some of the economic and social forces which made slavery possible may also be perpetuating the cropper system. We need to know also the factors which determine the amount of tenancy, and those which determine its rate of increase or decrease.

Frequently it is said that high land values are the cause of tenancy; then, presumably, the higher the land values the more tenancy. But the most interesting part of the theory is that it isn't so, for the areas of highest land values in the United States where specialty farming is carried on—notably California, Florida, and the Rio Grande Valley of Texas, are not the high tenancy areas, but tenancy there is relatively low. Even though we grant for the moment that the assumption is correct, when we examine the reasons given, it is said that this is so because good land can make a living for both the tenant and the landlord, while poor land cannot. Queer logic, indeed, for if good land is that good, it should be easier paid for than poor land because the tenant-purchaser would just pay it out in a few years with what the absentee landlord has been getting, and owner-operators would locate on the good land. But waiving this rebuttal as not being conclusive disproof of the theory, then we may ask why twenty thousand dollars ($20,000) worth of average good farm land, or ranch land, would not make a living for two families as well as twenty thousand dollars worth of good land? Presumably the rate of, and therefore the total, return on the investment would be the same. The difficulty is not in the poor land, but poor reasoning, because the assumption seems to be an equal number of acres of both *good* and *poor* land, in which case the value would vary, rather than the logical assumption that the value of the investment would remain constant, in which case the number of acres would vary from one grade of land to another. The fact is that the Department of Agriculture itself, supposedly the acme in research procedure, has produced no studies indicating that the rate of return on investments in land of high value is greater than that in lower priced land. A twenty thousand dollar goat ranch in Texas, or a twenty thousand dollar combination crop and livestock farm on poor land in Vermont, may as easily make a living for two families as would a farm of the same value in wheat or cotton. We must do a better job than that in explaining tenancy or the recent agricultural depression will spread into a depression in agricultural thinking. There is some correlation, of course, between high land values and the amount of tenancy, but there is also between fat dogs and the number of their fleas. High-

priced land could have very little if any influence in producing tenancy if farmers didn't want to cultivate enough acres to justify the use of most up-to-date technique, and would be willing to own only a few acres for subsistence purposes. It is therefore, largely the value of farms and not the price per acre of land which is conducive to tenancy. But, again, the size of the farm required is a matter of two main factors; namely, first, the technique employed, and, second, the system of farming carried on. Were a farmer willing to sacrifice his technique and try hand methods, and put up with a lower standard of living, a few acres of high-priced land would suffice. But whether a man wishes to operate a farm or a ranch which will yield a given income, it is the total value, and not the per-acre value which counts. But since the absentee owner is a necessary element in tenancy, the system of farming in vogue in a given locality determines whether he will choose to invest in land there or elsewhere. Of course, no absentee landlord, no tenants.

Also regarding the amount of tenancy, it is frequently said that tenancy will increase until it reaches normal. But no definition has been given so far as I know of *normal* tenancy, or why one level in one area is considered normal, and quite another level in another area is said to be normal. In tenure literature, every area is due a normal amount of tenancy, and whatever amount is found, that is forthwith pronounced *normal.*

Likewise, on the rate of growth of tenancy we know as little or less, except we say that we know it grows very little after it reaches normal. Now, if high land values make for high tenancy, they should also make tenancy grow, for it is a bit preposterous to argue that tenancy gets big without the presence of factors which make it grow. But a very disturbing fact is that high land values don't make tenancy grow. The areas of highest land values have, except during depressions, comparatively stabilized amounts of tenancy. The growth takes place while land values are relatively low, but also still growing. Witness the growth in West Texas and Oklahoma, for example. The highest tenancy in the United States is not found on the highest land values, but frequently on only medium priced land. The truth is we have reached no accord, nor even a small degree of finality, as to what factors make for the institution of tenancy itself, or why it ascends to various levels in different areas and then becomes more or less stabilized. Finally, what are the *growth factors* which bring tenancy up to the traditional "normal" level?

Manifestly, if we ever are able to attack intelligently what we are inclined to term unusual amounts of tenancy, we must strike not at the full grown giant, but must strike at the factors on which it feeds—those things which produce its growth. And, in looking for these factors, we must give more attention to the influence of the following factors:

(1) Causes of differences in wealth and income, which make many inclined to till the soil unable to own it.

(2) The influence of speculative values in land, which means that, as a long-time investment, values may be sound, but are too high to support owner-operation from current income levels.

(3) Finally, we cannot overlook the influence of competition in the use of farming techniques. This factor in the past has been sadly overlooked, yet it is of great significance in these respects; first, the use of the best known techniques means their employment on good land for the system of farming adapted there; secondly, this fact necessitates an increase in the acreage of an economically operated farm, and therefore, in its value; thirdly, the down payment ordinarily required usually exceeds the accumulated savings of the average tenant on small farms with poor techniques. He must, therefore, remain a tenant, or purchase a lower valued farm and sacrifice a portion of his better technique. Thus more owner-operators on small farms of poor land. Fourthly, the total value of economic-sized farms, operated with good technique, exceeds the probable life-time savings of the average farmer from his labor income, and who, therefore, cannot expect to own outright a farm which exceeds in value the anticipated accumulated savings of a lifetime. Fifthly, any farmer can become an owner by forgetting his standard of living, and the possibility of employing a better technique, by going so far out in the "sticks" that a small subsistence farm could be had for little more than the asking, provided he will purchase few enough acres. And he can afford to do this if techniques can be ignored and his standard of living scaled down correspondingly. He would then have time to fish and hunt, and scratch a little piece of ground for his subsistence. Concerning his other wants, the Agrarians say these would no longer bother him after he has had time to forget them. Most farmers then would be owners, they would live at home, and wouldn't have to send good Texas, Alabama, and Georgia money out for Iowa corn and bacon and the new era of prosperity for the South would be ushered in. Also the Census Bureau could now report that the tenancy problem had ceased to exist, and we had become a nation of home-owning farmers.

But the solution to tenure problems in the South is not so easily achieved, and before we embark upon so hazardous a venture as the destruction of tenancy and the creation of small-scale, owner-operatorship, we need some pertinent research along the following lines, as a point of departure:

First; on tenure problems of owners, to ascertain—

(1) The economic-sized family farm in different areas for different systems of farming, utilizing improved technique.

(2) What constitutes appropriate technique for the economic-sized farm under a given system of farming?

(3) The relative magnitude of rents paid to total interest, taxes, and other over-head charges necessary on farms of given values.

(4) The comparative net incomes of a given number of farmers as owners to that of the same farmers previously as tenants.

(5) The actual net productivity—not gross value product—of small-scale, general farms, and living standards thereon, operated by owners as compared with net incomes and standards of living of tenants on larger farms.

(6) Can owners "live at home," and if so with what consequences, and if not, to what extent, and what significance has the term? Finally, substitute for this term a phraseology which makes sense.

(7) What fundamental factors discourage owner-operatorship on high-priced land, and cause it to tend to settle on poorer lands? Is it the per-acre value of the land, or the total value of the accepted farm unit?

(8) What is an economical relationship between the total value of buildings and improvements to that of the land itself in a good farm set-up, by areas and systems of farming?

(9) Finally, what changes in present methods of reporting data by the Census Bureau are needed in order to permit the use of such data in research in tenure problems?

A host of other pertinent information is needed if, and when, it can be obtained, but will be omitted from the present discussion for lack of time and space.

Now, secondly, what are some research needs on tenancy problems? These may be listed somewhat as follows:

(1) What is the origin and place of the institution of tenancy in our present system of private property?

(2) Are there acceptable and desirable alternatives to tenancy, and by what means can they be achieved?

(3) What factors determine the amount and growth of tenancy?

(4) If tenancy is to remain, what undesirable features are amenable to regulation and control in the interest of greater security of tenure, and larger individual family incomes?

(5) What equipment is now furnished the average cropper of the South, the value of the same, and what is the annual cost of such equipment to cropper tenants?

(6) How much management, of what character, and of what value is furnished Southern cotton croppers?

(7) A comparative study of farm management practices of small-scale owner-operators, share, and cropper tenants.

(8) Since absentee ownership is the other half of a tenancy system, by what means can it be discouraged, and owner-operatorship substituted that represents an improved economic status of such owners?

(9) To what extent is tenancy promoted by the comparative advantage

in the production of staple, non-perishable crops in certain areas? In other words, what factors cause absentee owners to invest in certain areas and refrain from so doing in others?

(10) In the newer areas of the Southwest, what connection is there between speculative increments in land values, and the presence of absentee ownership, therefore tenancy?

(11) What influence would rural zoning, and especially rural housing, legislation have on the profitableness of absentee ownership, consequently land values and, therefore, the amount of tenancy? Results of such studies might reveal that unless the standard of living of many potential owners in the South gravitates to that of present croppers, land cannot be bought at present prices, deemed justifiable to absentee owners under their practices.

Much more information than called for in the foregoing will eventually be required, but when we have that much, we will be far on the road to being able to solve some of the tenure problems of the South, if only we have the courage to apply what we know.

Discussion by Lowry Nelson

Utah State Agricultural College

Mr. Maddox has given us a broad conceptual basis for an approach to the study of tenure. Accepting Dr. Wehrwein's definition of tenure research he has appropriately indicated that the subject cannot be adequately studied by one group of social scientists who represent a particular emphasis or limited approach, but that the economist, the sociologist, the political scientist, the social psychologist and the historian, all have a contribution to make.

With this point of view there can be no rational dissent. While too much credit cannot be given the students—predominantly the economists—for seeing the problem of tenure rather early and making the important beginnings in its analysis, the time is here when the representatives of the other social disciplines should cooperate in a concerted attack. For land tenure is a problem so basic in its implications for the general welfare, that it cannot be properly analyzed and understood from a particularistic approach.

The relationship of people to land sets the stage for the generation of an infinite number of social problems. The history of rural peoples of the world, and a cross-section view of contemporary rural life, bears out this statement. The maladjustment of people to land propagates a low standard of living, inadequate social institutions, and in the long run is bound to express itself in political upheaval. On the other hand, a proper adjustment of people to land, brings about desirable social results. Moreover, as Mr. Maddox points out, the social scientist in studying this problem has an obligation which goes beyond the stage of analysis and generalization. He must perforce suggest, if not design, the instruments of policy by which the needed readjustments suggested by his research can be realized. In the process of translating research into policy, success will be more cer-

tain if full advantage is taken of the possible contributions which all of the various disciplines can make. The unitary approach is therefore the only sound procedure for the research worker to follow.

While undoubtedly this point does not need to be unduly labored before this group, it is interesting to observe in recent years particularly, what seems to be a definite trend towards the unification of the social sciences. While there will always be need for specialization, the interpretation of his data by any scientist will be more useful—if not much sounder—if his point of view is oriented to an appreciation of the larger aspects and implications of his specialty. This need of social scientists for what might be called an over-all view of society is finding expression in many different ways, the very meeting we are now attending offering a significant example.

There is one other suggestion in the paper by Mr. Maddox to which special attention might be directed. It concerns the basic assumption that social planning is desirable and possible in a democracy. The process which Maddox describes of a coterie of research workers developing facts as a basis on which a harassed administrator of this or that can formulate a policy, is in the parlance of the man in the street, I believe, known as "brain-trusting." The term itself does not exactly carry connotations of endearment. Which suggests that the first thing to which the research workers in social psychology might direct their attention is how to remove the opprobrium from the term and make it sweet and acceptable to the public, or invent a new stereotype unit more acceptable by the public. While there are plenty of people who feel that conscious social planning is neither possible or desirable, it is safe to assume that they are in the minority and many of them derive their attitudes from propaganda sources. The fact is, of course, that no society is without some form of planning, no matter how primitive. In a true sense our major departments of government in this country are both planning as well as administrative bodies and most of our legislation represents social planning of some sort. It is perfectly safe to say that we are going to continue to have social planning in this country, whether good or bad. The amount of it which politicians will tolerate may be a good deal less than that which the scientist might hope. The research worker who performs the role as set forth by Mr. Maddox must attempt to discover the extent, and by what processes social planning can be articulated with the political system in which we live.

Now, if the field of land tenure research is to be broadened in accordance with the apparent need as expressed by Mr. Maddox, research workers themselves must find an appropriate administrative device to achieve not only greater coordination but a definite integration of effort. This is no small task in itself. We must recognize the fact that the various scientific disciplines represent more or less definite compartments of knowledge. The more strictly the respective fields are defined and recognized the stronger are the professional traditions and the more likelihood there is of manifestations of emotional resistance to free cooperative effort.

Every administrator of research finds himself confronted with the task of integrating the attack of workers upon a problem which has aspects peculiar to two or more of the recognized scientific fields. His organization is built on what might be called *vertical* lines, while the problem to be studied transects these lines on a horizontal plane. This is true, whether

you are considering the bureaucratic organization of the federal departments or the departmental organization characteristic of educational institutions. When a problem assumes such breadth as land tenure, the question of organizing research to deal with it raises its head.

The situation might be handled in two ways:

1. The different aspects of the problem can be "farmed out" so to speak with the existing agencies which have appropriate jurisdiction, the economic aspects studied by the economists, the social aspects by the sociologists, the home economic aspects by the home economists, et cetera.

2. The whole problem set up on a project basis with a project leader in charge, and to whom would be assigned various specialists from the fields of study which are involved. This group might be constituted as a working committee temporary in character, the members of which would be responsible officially to their respective bureaus, but technically responsible to the project leader. Each member of the committee would presumably have access to all of the resources of information in his respective bureau.

Emergency agencies in their state of flux accomplished a semblance of integrated attack by drawing into their staffs specialists representing the various disciplines which it was seen had a contribution to make. Examples of this are to be found in the work of the AAA, FERA, RA and Soil Conservation. However, they had freedom for action which is denied the old-line bureaus, and which they are not likely to retain for long.

Experiment stations quite commonly use the project committee or some modification of it to get cooperative action.

It seems to be the only device which can forestall jurisdictional battles among bureaus and departments, for no bureau, division or department can be expected to yield to another sole jurisdiction for dealing with a question which by its nature falls logically no more to the one than the other.

This means that integrated research on a given problem is dependent in large measure upon attitudes of the workers themselves. The entire process of professional education in the colleges and universities tends to develop departmental or specialist attitudes. The "lone wolf" type is the product of these processes more often than the cooperator. Educational institutions can help in developing attitudes which will make the goal easier to attain. In fact, in the long run, they can make the major contribution to this end, if they will.

But immediate responsibility for integrating research must rest upon the administrators themselves. By becoming conscious of the need, they can motivate staff members to cooperative effort, and create the administrative devices by which the objective can be realized. But administrators tarred too much by the brush of bureaucratic tradition, may find it difficult to forsake the line organization by which bureaucratic kingdoms are built. Where this is the case, the outlook for cooperation is anything but bright. The only alternative in such instances, is for subordinates representing the scientific "guilds" to cooperate informally at least to the extent of discussion of the problem and of keeping each other posted on progress of the work. And if this is bureaucratic heresy, we shall have to make the most of it.

Discussion by O. G. Lloyd

Purdue University

Dr. Schickele has succeeded in pointing out the problems in tenure conditions of the corn belt which call most urgently for a constructive solution. In my opinion, he is justified in focusing the emphasis upon improving landlord-tenant relationships and of doing this in the direction of greater security of tenure and better opportunity for the tenant to exercise initiative.

Any government subsidy of owner-operatorship should be based upon research indicating the rate of return under different methods of land tenure, the effect upon the soil and upon the community of owner-operation compared to part-owner and renter-operation.

I wish to supplement what Dr. Schickele has presented with a little different approach; to indicate how practical and extensive must be our economic and sociological research in order to determine if owner-operatorship should be subsidized.

Approximately three hundred farm operators in the "Central Livestock and Grain" type-of-farming area of Indiana have been cooperating with Purdue University the past seven years in keeping the "Indiana Farm Account Book." The data include nearly 2,000 crop years, covering 1929 to 1935 inclusive. These record-keepers were selected in different parts of the area to get a representative sample, but such cooperators are probably above the average and, therefore, better risks for a government owner-operatorship subsidy than would be the average operator of the area.

About one fifth of the area of the state is involved, with its southern boundary including Indianapolis, and the land value is considerably higher than the average of the state. Thirty-seven per cent of these cooperators are part-owners, who rent approximately the same acreage as they own; owner-operators comprise 33 per cent, or one third of the total; stock-share 16 per cent, or one sixth; crop-share 12 per cent, or one eighth; and cash renters but 2 per cent of the total. The 30 per cent of total renters is probably lower than the area average, and the stock-share percentage of 16 per cent of all farms is probably higher than the average of the area.

A question relevant to the discussion is "Which paid the better on an average for the past seven years, 1929 to 1935 inclusive, being an owner-operator, a part-owner, a stock-share renter, or a cash renter?" It is obvious that although the current market price of the land was used to calculate the rate of return, changes in the price of land were not included in expenses nor receipts. Neither was any accounting made of the comparative loss, or gain, of soil fertility under the different methods of tenure. Seven hundred and fifty dollars was deducted in 1929 for the operator's labor and $400 in 1932, the amount depending upon the current price of farm labor. Other expenses deducted include current operating expenses, such as taxes, repairs, and depreciation but not interest or payment on principal.

In 1929, not one of the five tenures averaged less than 5½ per cent; in 1930, no group had an average of even 2 per cent; in 1931, a minus 3 per cent was the least loss of any group; in 1932, four out of the five groups failed to make any return on the investment; in 1933, the lowest group

made 6 per cent; in 1934, 11 per cent and in 1935, 12 per cent. The average for the seven years was: Owner-operators 4.4 per cent; part-owners 5 per cent; cash renters 8.1 per cent; stock-share tenants 8.4 per cent; and crop-share tenants 13.6 per cent. Owner-operators compared to renters during the 7 years, received less than half the annual return per dollar investment at current market prices, and the index price of land for Indiana dropped 22 points, or from 83 per cent of prewar to 61 per cent. With production credit for working capital available at 5 per cent compared to 3½ per cent on a first land mortgage and 5 per cent on a second land mortgage, how much better off are owner-operators than renters?

On the other hand, if more information were available on phases such as the effect upon soil fertility and community life of part-owner, renter and heavily encumbered owner-operator farms, the limitations of farm management extension data in connection with tenancy studies would be better understood. When all tenures in this Indiana area are placed on the farm basis and rent is not charged, the crop share-renter appears to be the best farmer. In other words, if he owned all the land he operated during the past seven years and had not paid rent, he would have made a return of 5.2 per cent compared to 4.4 per cent made by the owner-operator; 4.9 per cent by the part-owner; and 3.9 per cent by the stock-share renter. Such items as difference of age of owner-operators compared to renters has been disregarded in the collection and interpretation of these records, which were obtained, primarily, for farm organization extension purposes and not as discriminating land tenure data.

Discussion by T. Lynn Smith

Louisiana State University

In the time available to me I can discuss only a few of the questions raised in Dr. Wiley's interesting paper. Probably it will be best if I omit from consideration the many points upon which we are in agreement, and give my attention to some parts of his paper with which I either disagree or feel are in need of further clarification.

In no uncertain terms Dr. Wiley has stressed the need, in dealing with land tenure, for a terminology that makes sense. I agree perfectly with this, for our thinking upon any problem is limited by the validity of the concepts used. However, I find very little in his paper which serves to clarify the matter. In fact it seems to me that a portion of his paper only confuses the issue still further. For example, Dr. Wiley seems to think we have abundant information concerning the extent of tenancy, its trends, its distribution, its association with such factors as race, etc. In this I most vigorously dissent. Many years ago Alfred H. Stone[1] pointed out the inadequacy of the definition of "farm" used in the census tabulations, and indicated how this invalidated practically all the agricultural statistics for the South, including the statistics on farm tenancy. With the prevalent practices of the Census Bureau, many plantations which were counted as 10, as 50 or as 75 tenant-operated farms in 1930 (as many farms as there were families of croppers and share tenants residing on the places) were classed as single owner-operated farms in 1935. This happened on

[1] "The Negro and Agricultural Development," *The Annals*, XXXV (1910), p. 15.

all plantations where laborers were transferred from a share-of-the-crop to a wage basis between 1930 and 1935. Such a change in the manner of paying wages has had a great influence upon the amounts and proportions of tenancy which are reported in the census, for on many plantations the laborers shift, or are shifted, back and forth from a wage to a share-of-the-crop basis with considerable frequency. So long as laborers paid on a share-of-the-crop basis are called "tenants" and classed as farm operators, we have not begun to develop a phraseology that makes sense.

In this connection I wish to submit two propositions: (1) an agriculturist should not be classed as a tenant, unless he is first a genuine farm operator, and a cropper is not a farm operator; and (2) the classification of agriculturists implied in the AAA program is far superior to that used by the Census Bureau.

Robert Preston Brooks[2] has stated the case for the first proposition with such clarity that I can do no better than to quote his words and evidence:

> When it is once realized that the share system finds place only on plantations under close supervision, that the share tenant is really a day laborer, and that his holding is not a farm but a section of a well-ordered unit, it should be manifest that there is little cause for alarm on account of the decline in the percentage of farms operated by owners, and the growth of tenancy in Georgia. . . .
>
> The law of Georgia sustains the position that the share tenant is only a day laborer and not a real tenant. Of course, the law simply crystallizes the actual economic facts as they have worked out. In 1872, the Supreme Court in the case of Appling vs. Odum (46 *Georgia Reports,* pp. 584-585) held:
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> "There is an obvious distinction between a cropper and a tenant. One has a possession of the premises, exclusive of the landlord, the other has not. The one has a right for a fixed time, the other has only a right to go on the land to plant, work and gather the crop. The possession of the land is with the owner as against the cropper. The case made in the record is not the case of a tenant. The owner of the land furnished the land and the supplies. The share of the cropper was to remain on the land and to be subject to the advances of the owner for supplies. *The case of the cropper is rather a mode of paying wages than tenancy.* The title to the crop subject to the wages is in the owner of the land."
>
> The important words have been italicized, in which the court expressed the opinion that a share hand is a wage earner, not a tenant, or renter. This decision has been the basis of all subsequent rulings as to the relations of landlords and tenants in Georgia. The view was reiterated in 1878 (61 *Georgia Reports,* p. 488) when the court held that "Where one is employed to work for part of the crop, the relation of landlord and tenant does not rise." Ten years later the court defined with great clearness the position of the share hand: (80 *Georgia Reports,* p. 95).
>
> "Where an owner of land furnishes it with supplies and other like necessaries, keeping general supervision over the farm, and agrees to pay a certain portion of the crop to the laborer for his work, the laborer is a cropper, and judgments or liens cannot sell his part of the crop until the landlord is fully paid, but where there is a renting, and the relation of landlord and tenant exists, an older judgment will subject the renter's crop . . . (both parties) swore that Plunkett (the tenant) rented the land from Almand for a specified rent. The land, therefore, was in possession of Plunkett, the tenant, and not in Almand, the owner. The work was not done under Almand's

[2] "The Agrarian Revolution in Georgia," *University of Wisconsin Historical Series,* III (1914), pp. 67-68.

superintendence and direction. Almand had no control over the land, and the crop made on the land was not to go in payment to Plunkett for his labor in making the crop. He was therefore not a cropper as defined in 46 Ga. 583 (Appling vs. Odum)."

It should now be clear that in economic significance, and in their practical and legal aspects, renting and share tenancy are as wide apart as the poles. The cropper is a day laborer, works under constant direction, has no exclusive right to the premises or title to the crop he produces. The renter, on the other hand, is a real tenant. The court has explicitly held (75 *Georgia Reports,* p. 274) that the landlord has no right to enter on the tenant's farm against his will to interfere with the crops. The tenant has exclusive possession of the premises for the time being and entire control over his crops. It is scarcely necessary to point out that the reason underlying this distinction is that, in the case of the cropper, the landlord is the sole capitalist and entrepreneur. Everything necessary to make the crop is supplied by him; while, in the case of the tenant, a fixed rental per acre is paid the landlord, and the landlord's connection with the tenant's farm ceases there.

In my opinion there are few things so ridiculous as classing the cropper as a tenant and hence a farm operator. Furthermore, many a southern "share tenant" is merely a cropper who owns a mule.

The classification of farm operators implicit in the AAA records, a division which seems to be adequate and based on an understanding of realities, is as follows:

1. Owners
2. Cash Tenants
3. Standing Renters
4. Share Tenants

All of these are entrepreneurs. The standing renter is distinguished from share tenant by paying a fixed amount of produce, rather than a share of the crop, as rent.

To this I would add the following classification of farm laborers:

1. Wage Hands
2. Share Croppers
3. Share Tenants

Croppers contribute their labor only and are paid a share of the crop—nominally one-half. "Share tenants" may contribute a mule and a little equipment, as well as their labor, to the production process. But it is the planter or landlord, and not the "share tenant," who makes the decisions and exercises the entrepreneurial functions. Dr. Wiley points out that tenure refers to "the conditions, terms, or manner by which any farmer holds the land which he occupies." But Dr. Wiley knows, as well as I, that the southern cropper does not hold or control the land.

Let us pass on to another point. Dr. Wiley expresses considerable contempt for the existing literature dealing with problems of land tenure. If the shafts which he launched at the literary group called Agrarians are ignored, the draft of his paper which was submitted to me contains no direct citations or references that would enable one to determine what studies are known to him. Without this essential information it is difficult to determine whether or not he is setting up straw men and then

knocking them over. I find nothing in his paper to indicate that he is familiar with the basic studies made long ago by Stone, Brannen, and Brooks.[3] Neither does his paper sound as if he were unduly familiar with the recent studies of Johnson, Hoffsommer, Hamilton, Blackwell, Raper, and Vance.[4]

Among the most suggestive portions of Dr. Wiley's paper are those in which he deals with the excessive charges exacted from the cropper for the use of work stock and equipment. Dr. Wiley indicates that the cropper is charged one fourth of the crop for land and another fourth for work stock and equipment. His own words are as follows: "These tenants pay, usually, for the use of the farms they till and such improvements as are on them, one fourth of the cotton they produce. They then pay an equal amount in addition for the use of operating equipment which they use. In other words, for the use of a tiny lot of dilapidated tools, one mule, some seed, and some alleged management, they pay an amount equal to the value paid for the use of the entire farm they till. The sum exacted for the use of these materials would pay their purchase price each year over and over for the entire period of their usefulness."

Were Dr. Wiley less of a classicist, a group he seems to scorn, and more of an institutionalist, a group he apparently admires, his analysis might have been amplified as follows: (1) the cropper is a laborer whose nominal payment for his labor is one half of the crop. (2) There is and has been no scientific basis for the nominal division of the crop on a half-and-half basis. The system originated in the time of stress immediately following the Civil War. It became institutionalized, and persists today without any fundamental changes having been made. Lacking an economic basis in the beginning, the relative contributions of the planter and the cropper probably have changed greatly since Reconstruction days. But the same nominal division of the crop persists. Who can say that one half of the crop justly should be labor's return? It may be too much or too little. With carefully kept records of cotton produced on a wage basis, a very different division of the crop might result. However, this is only a small part of the culture complex which needs to be examined. After all, this whole matter is inextricably tied up with the fundamental agricultural institution in the South—the plantation. The crop-lien mortgage, the commissary, the paternalistic relations between the planter and the families living on his plantation, bookkeeping by the planter, etc., must all be taken into consideration. It is often asserted that some of these are devices by which the planter avoids paying the cropper a full one half of the crop. If this be so, arguments about the relative portions exacted for land and for livestock and equipment have about as much significance as would proposals for rearranging the order of balloting in the Electoral College.

In conclusion, I wish to state that, in my estimation, most discussions of tenure and tenancy in the South, including Dr. Wiley's, confuse the prob-

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[3] Stone, op. cit., and "Plantation Experiment," *Quarterly Journal Economics*, XIX (1905), pp. 270-286; C. O. Brannen, "Relation of Land Tenure to Plantation Organization," *U. S. Dept. of Agriculture Bulletin No. 1269*, 1924; Brooks, *op. cit.*

[4] Charles S. Johnson, *Shadow of the Plantation* (Chicago, 1934); Harold C. Hoffsommer, *Landlord-Tenant Relations and Relief in Alabama* FERA Research Bulletin (Washington, D.C., 1935); C. Horace Hamilton and R. M. Williams, "Factors Related to Farm Tenancy in North Carolina," JOURNAL OF FARM ECONOMICS, XVI (1934), pp. 714-16; Gordon W. Blackwell, "The Displaced Tenant Farm Family in North Carolina," *Social Forces*, XIII (1934), pp. 65-73; Arthur F. Raper, *Preface to Peasantry* (Chapel Hill, N.C., 1936); and R. B. Vance, *Human Geography of the South* (Chapel Hill, N.C., 1932).

lems of tenure with those of large-scale agriculture. There are problems of land tenure in the South which are very real, but these are similar to tenure problems in other parts of the country. In addition to these, the South has the acute problems which arise out of the plantation system due to the fact that the great mass of the agriculturists have no tenure rights, and a few people shoulder all the responsibilities. At the present time the so-called tenancy of the South is blamed for the one-crop system, inefficient labor, low returns to the laborers, soil erosion, soil exhaustion, etc. It is interesting to note that prior to the Civil War the institution of slavery received the blame for these.[5] Why not saddle the responsibility onto the plantation system where it properly belongs? Perhaps in the future a system of cooperation will be evolved which will overcome the social disadvantages of large-scale agriculture. But so far in the history of the world large-scale agriculture has always resulted in the development of a small selected group of the elite, while the great mass of the population has remained in ignorance and poverty.

[5] George M. Weston, *Progress of Slavery in the United States* (Washington, D.C., 1857), pp. 233-4, *passim. cf.* M. B. Hammond, *The Cotton Industry*, Part I (New York, 1897), p. 44, *passim.*

OBSERVATIONS ON LAND VALUE TRENDS[1]

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The present period is one in which American agriculture faces a situation that is unique; unique perhaps in a number of ways, but especially so with reference to changes in the value of its principal asset, farm real estate; and for the reason that, after the first major decline of values in our history—a decline lasting 13 years and carrying values to a level 57 per cent below their peak—farm real estate values have again turned upward.

In a certain very real sense, I think it may be said that we have just seen the close of one period in American agriculture, and are now entering another. During the earlier period, as new areas were developed, land values in the newer regions rose gradually, and by 1910, by and large, had overtaken the values established in the earlier settled areas. This uptrend was favored by the accompanying developments of the times, and served to set the stage for the speculative wave that, centering in the Middle West, joined with the war and post war price rise to carry land prices to hitherto undreamed of heights, from which they crashed with a chain of events so well known as to be accepted as almost commonplace. That decline, ending at last in early 1933, brought values in many areas to levels approximating those experienced at one time or another during the first decade of the present century.

We enter this new period in an inquiring mood, not unmoved, perhaps, with some feeling of trepidation, concerning *future* land value trends. The tremendous range through which values—real or hypothetical—have varied during the last two decades, accentuates the difficulty inherent in deciding what level of land values may be regarded as likely to be reasonably stable on the basis of the current outlook, particularly since there have been very few years during the last 30, in which values in the more important agricultural regions were not moving either upward or downward. We have not had for many of the most important regions, at least in the present century, any extended period of stability in land values, such as, for example, may be had in certain European countries.

Our outlook has matured somewhat during the past score of years, and although our agriculture is young in comparison with

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

that of Europe, we can no longer look forward to expansion in the same sense as in the earlier part of the century. We can no longer look forward with the same degree of expectation to the rising values that come during the initial stages of agricultural development but must re-orient some of our thinking in terms of the present domestic and foreign outlook. We must seek our foundation for future values on the sound basis of income.

In the new period of readjustment which we now appear to be entering, a level of values that shall prove sound is a prize sufficient to merit careful study and the attainment of which is worthy of some sacrifice. But reaching this goal is no simple task. History is replete with examples of instabilities in the economic order. The depression has focused renewed attention upon these instabilities, and upon the losses and gains to the economic body which they entail; but although some instability may be the price of continued progress, there would certainly appear to be some merit in attempting to dampen the amplitude of some of the swings of the pendulum, particularly where such a damping gives promise of preserving the gains that may be achieved during the upward swings. That less vicious swinging of the pendulum of real estate values would be highly desirable scarcely seems debatable.

In the discussions of the causes of the depression, of the various instabilities involved, and of the possible curative measures, a wide field has been covered, and if the many divergent opinions that have been expressed have shown nothing else, they have demonstrated conclusively that the causes of the depression and of the accompanying acute changes in price levels were not simple, but on the contrary constitute an extremely complex and inter-related system. It seems to follow then, much as we may wish to avoid the unpleasant phases of depressions in the future, that the realization of this objective is no simple task, and, just as the causes were complex, so whatever measure of success may be achieved, will not result from one or two heroic measures, but from judicious action along many fronts.

In the field of land values and long-time credit, we may as well admit at the outset that so long as price levels fluctuate, so will land values seek to adjust themselves thereto. In making this admission, however, those of us whose professional and business interests lie in the land value and farm mortgage field cannot fully absolve ourselves from all concern as to the specific instabilities that characterize our own field. On the contrary, our responsibility is the greater that we examine the mechanisms

through which price variations are reflected in farm real estate values and in the formulation of farm mortgage credit policies. Do these mechanisms accentuate booms and depressions, or do they store reserve strength in the upswing to cushion the subsequent reaction?

In the field of agriculture depressions impinge heavily on farm real estate, for farm real estate values reflect the real or supposed prosperity of farmers, and although the period of rising values is relatively painless, any disproportionate increase, especially when accompanied by too liberal credit, diverts productive energy and capital from other channels, and serves too aggravate the ensuing reaction. On the other hand, when the farm income stream shrinks, an increasing proportion of it is required for the discharge of fixed obligations, and thus the normal flow of purchasing power to other channels is disproportionately restricted, and the effects of the initial disturbance are imparted in an ever widening circle.

If, in beginning this more mature stage of our development, we can avoid some of the excesses of our adolescence, agriculture will escape for the immediate future at least, a condition that has plagued it for a decade and a half, and in so doing, will tend to minimize its contribution to industrial and commercial instability.

The healthy introspection stimulated by the depression has precipitated into our consciousness many of the weaknesses in the mortgage investment and land value mechanism that were not recognized earlier. Much thought, for example, is being expended to avoid the excesses of the previous period. A great deal of attention is being given to the improvement of appraisal procedure, to the analysis of the physical and economic bases of land value, to the studying of the past in an effort to interpret more accurately the future, and to the merits of flexible contracts. We are fortunate that a great deal of information relating both to the economic and the physical factors involved in land values has become available over the past decade or more. Progress has been made, for example, in applying to appraising the information contained in soil maps, soil ratings, and the accompanying texts. With respect to economic considerations, more data relating to prices, yields, farm earnings and expenses, trends in historical land values, and similar factors are becoming more widely available. Furthermore, distinct progress is being made in combining these data, and in relating one set to another. For example, the type of appraisal analysis—based primarily upon

single farms after careful personal investigation by the appraiser—that is being carried on by various appraisal organizations gives promise of making very definite contributions to our knowledge. On the other hand, various statistical studies by the agricultural experiment stations give promise of disclosing much helpful information.

We should not permit this progress, however, to lure us into such an uncritical attitude that we refuse to inquire searchingly into the extent to which the land value and mortgage credit structure of the next few years will be able to withstand acute price reactions if they should, perchance.

We might ask ourselves a number of fairly specific questions. For example, will our appraisals of the present and of the next few years stand up any better than those of the past? Will the values to be established leave an adequate margin of safety against fixed charges? Is a sufficient differential being established between good and poor farms, and are the various factors that make one farm more desirable than another being given their proper weight in our appraisals? Is our real estate credit structure such as to withstand an onslaught such as we have witnessed in the past several years, or will it require artificial respiration in the moment of emergency? What improvements are being made in the mechanism for handling loans that go "sour"? To what extent is it advisable, and what mechanism can be most effectively utilized, to introduce an element of flexibility into the mortgage contract, so that in periods of stress, loans may be kept in good standing and yet meet the contingencies of a violently fluctuating income stream?

Recent trends in farm real estate values, not only for the Nation, but also for a good many of the individual states, are so poignantly remembered as to require little elaboration. It so happens, however, that most of our data concerning economic matters relate to the various political subdivisions such as the state whereas the true lines of demarcation between dissimilar areas, often do not follow political boundaries. Thus the regions for which our data are available often are not coincident with the physiographic or economic characteristics which we should like to have similar for the regions to be studied and therefore do not always bring out comparisons as clearly as might be wished. Existing data, for example, represent in a reasonably satisfactory manner the trends in farm land values for the United States as a whole and also for individual states. But over the period of the last 35 years, although the trends for many subareas exhib-

ited in greater or less degree the same characteristic trend, there have been a number of shifts in the *relative position* of different areas with respect to their economic situation and of course with respect to land values.

These differences may be visualized in part by referring to the accompanying charts based upon compilations of Census data for farm real estate values. Counties are grouped according to the various type-of-farming areas as indicated on Fig. I. Obviously, values in certain areas such as the corn belt, since 1900, always exceed those of the United States as a whole, and values in the cotton belt have been just as consistently below the United States average. Inasmuch as our interest lies in the changing position of the various areas, a device is needed whereby the changing position is brought into prominence.

This could be accomplished, of course, by expressing the value for each area as a multiple of the United States average, and converting this series of relatives into index numbers with some one year as the base. Graphically, the same ends may be attained by plotting on logarithmic paper the ratio which a given area bears to the average of the United States. In Fig. 2 are represented for four areas this series of ratios.

From 1900 to 1920 average values in the corn belt rose a little more rapidly than those of the United States as a whole, but after 1920 they declined somewhat more rapidly than values for the remainder of the United States, and in 1935 their relationship with the United States averaged nearly the same as during the first decade of the century.

In the cotton belt the situation has been somewhat different. Real estate values there rose considerably more rapidly than for the entire United States, and even more rapidly than those in the corn belt from 1900 to 1920, but unlike values in the corn belt, they decreased more slowly until 1930 than for the remainder of the United States after which a slightly more rapid decline is evident. In the wheat area average values rose more rapidly than for the United States from 1900 to 1910, but during the following decade much of this relative rise was lost, and since 1925 the ratio has increased slowly.

In the dairy region, embracing most of the states of Minnesota, Wisconsin, Michigan, and a substantial part of New England and northern Pennsylvania, land values rose less rapidly than in the remainder of the United States until 1920, and declined less rapidly afterward.

Perhaps even more significant are the comparisons of the sub-

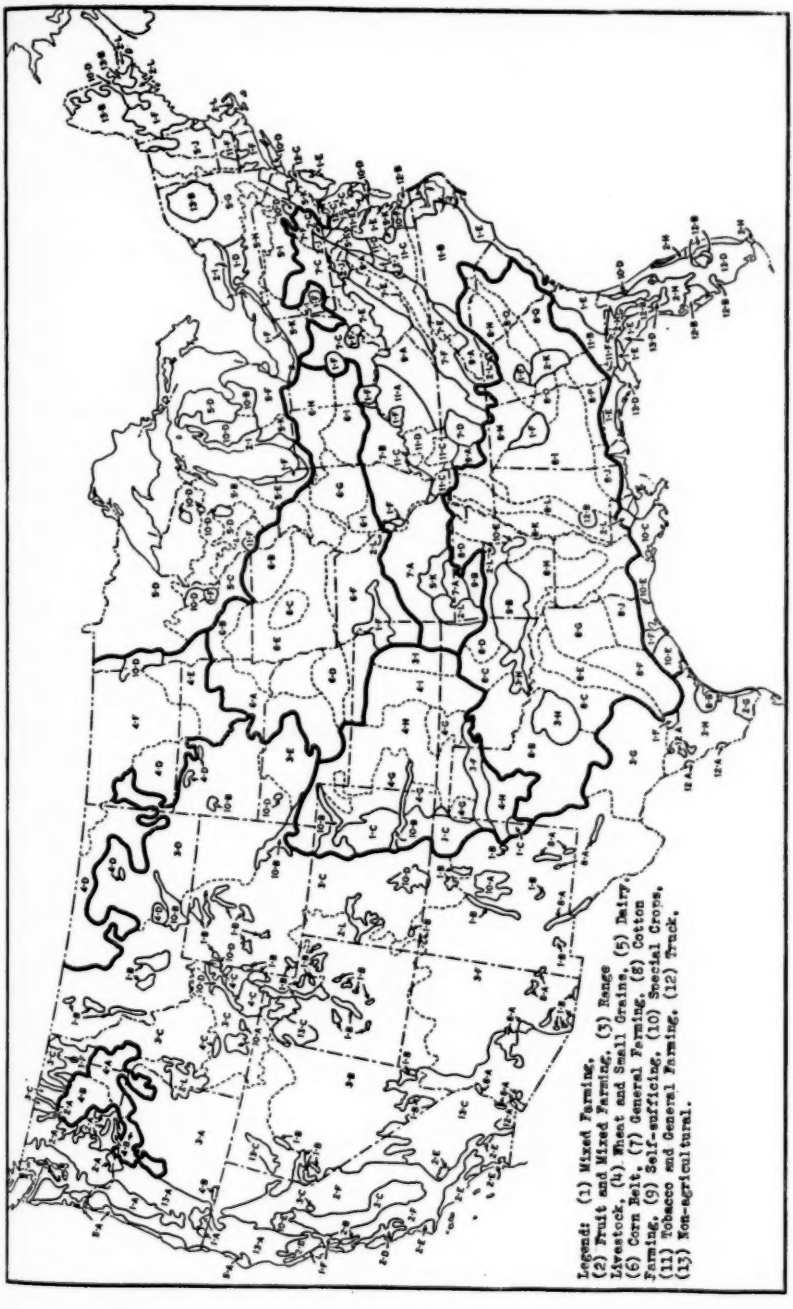
Legend: (1) Mixed Farming,
(2) Fruit and Mixed Farming, (3) Range
Livestock, (4) Wheat and Small Grains, (5) Dairy,
(6) Corn Belt, (7) General Farming, (8) Cotton
Farming, (9) Self-sufficing, (10) Special Crops,
(11) Tobacco and General Farming, (12) Truck,
(13) Non-agricultural.
U.S. DEPARTMENT OF AGRICULTURE

FIG. 1. Regionalized types of farming in the United States.

regions within a generalized region with the average values for the whole region. Thus, whereas the corn belt has shown certain characteristic behavior during the period referred to, values in the different parts of the corn belt have not been altogether consistent. In what may be called the western transition region of the corn belt, designated 6-A on the map (Fig. 1) values rose very rapidly, relative to those for the corn belt during the first decade of the century, then held their own until 1930, after which they declined slightly more rapidly than the corn belt. In the northern livestock region, designated 6-B the trend was practically reversed, and in regions 6-C, D, and E, values rose somewhat more rapidly during the first 10 or 20 years of the century than did values for the corn belt, and thereafter changed about in proportion. Throughout most of the remaining sections which includes 6-F, 6-G, 6-H, and 6-I values declined relative to values in the corn belt as a whole until 1930, after which in the latter three they rose relatively. Generalizing somewhat, then, values in the eastern corn belt rose less rapidly than for the remainder of the corn belt from 1900 to 1925, and fell more rapidly until 1930, after which they rose more rapidly than values in the corn belt.

In the wheat area differences also appear. The areas in which values have increased relative to the wheat area lie almost wholly in the areas designated as 4-G, H, and I. In the region of North Dakota, designated 4-F, the ratio of value to that of the wheat region declined almost steadily from 1900 to 1930, but rose slightly in 1935. In the wheat and general farming area of northeastern South Dakota, designated 4-E, the ratio of value to that of the area as a whole increased rather sharply in the period ending with 1920 and then dropped off again in succeeding years.

The wheat regions of the Pacific Northwest did not behave uniformly but in 1935 averaged about the same relative to the whole wheat area as in 1900.

For the dairy region, embracing the Lake States and most of central and western New England, values in all regions, with one or two exceptions, bore about the same relation to the average for the whole region as in 1900. In the western half, however, values in areas 5-A, C, and D, rose considerably more rapidly up to 1920 and later declined, whereas those in the eastern sections declined in 1920 and since then have been rising. The only region which apparently has lost ground substantially is area 5-H. The only regions that have materially improved their positions are 5-A, C, and J.

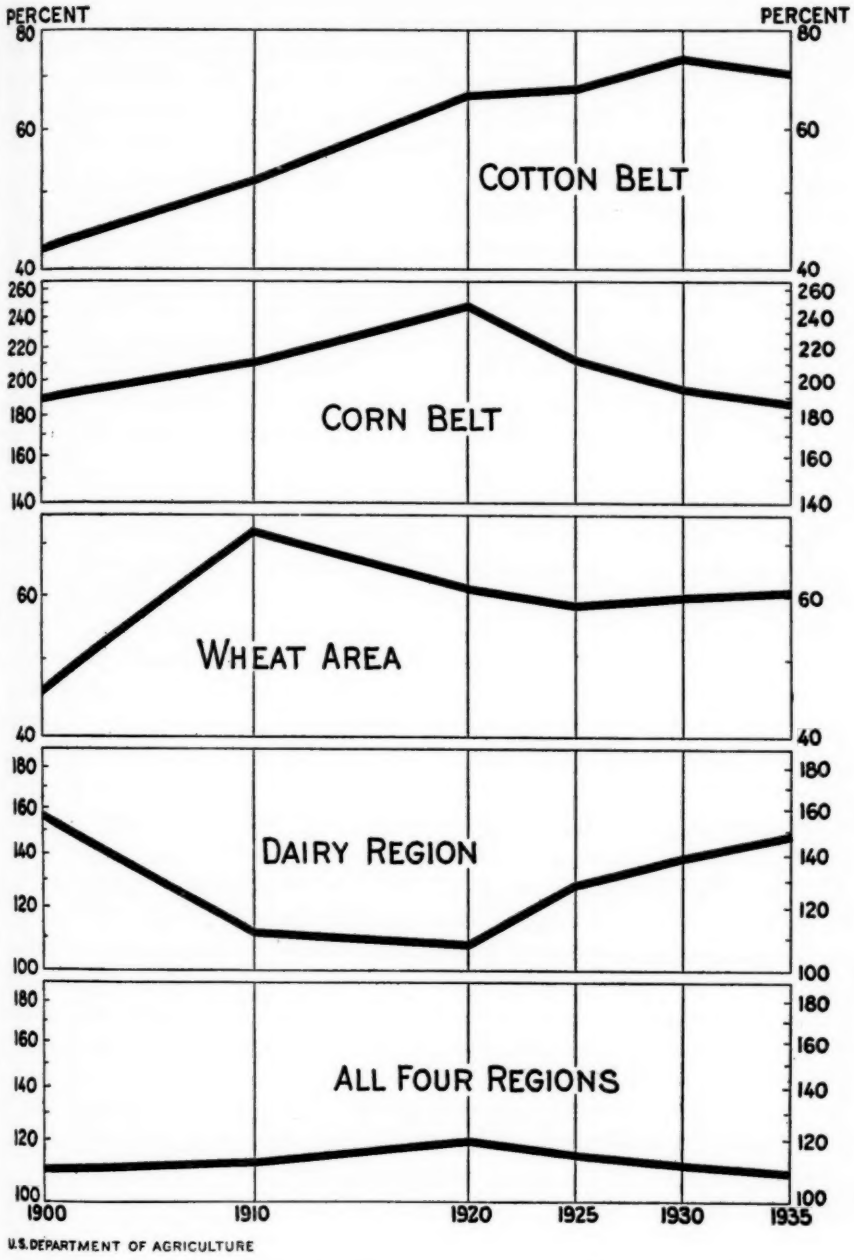

FIG. 2. Trend of average farm real estate values relative to United States averages, by major type-of-farming areas, 1900-1935.

In the cotton belt, considerable variation occurs. In the large scale cotton farming area in Texas designated 8-B, values have risen very materially relative to the average for the cotton belt as a whole since 1900. This is true to a lesser extent of what is often referred to as the southeast Texas and southern Mississippi Piney Woods Cotton and Self-sufficing Area 8-J, and also of the southeastern irrigated valleys which are scattered through western Texas and southern New Mexico and Arizona. Some areas which have lost ground, such as 8-C, E, and F. The delta regions 8-K of western Mississippi and eastern Arkansas and Louisiana have approximately held their own.

The wide variation, however, indicates the importance of carefully analyzing the factors affecting values in a particular locality and illustrates the dangers inherent in generalizing too greatly on the basis of data presented for the entire United States or even for individual states.

It is perhaps a truism to suggest that values are but a reflection of more fundamental factors, and of these factors earnings, both current and prospective, and home site considerations, together with that intangible something that is often referred to as the capitalization rate, are of primary importance. A change in value may result from a change in earnings or prospective earnings, and these are functions of price, production, technique, and the like. Or a change in value may result from a change in the rate of return that buyers and sellers are willing to accept; or from changes in both these factors.

Thus the differences in value between two areas at a given time, such as between the corn belt and the cotton belt, may not be wholly due to differential earnings but appear to be associated in part with a difference in the rate of return that buyers and sellers are willing to accept. This was demonstrated by Chambers' classic[2] analysis of Census data for 1920. He accepted cash rent as a measure of the income attributable to land on the assumption that cash rent expresses not only the tangible earning capacity of the land but also reflects the more intangible home and community contributions to income, and thus expresses the relative desirability of different farms.

The analysis of some 560 counties indicated that the ratio of gross cash rent to land value varied from in the neighborhood of 3 per cent in certain areas to more than 10 per cent in others. These differentials reflect a number of factors including risk, and,

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[2] Chambers, C. R., Relation of Land Income to Land Value, U.S.D.A. Bulletin 1224, 132 pages illus., 1924.

since the rents are gross, rather than net, perhaps differences in the land owner's expenses.

On the other hand, not only do these rates of return vary from one area to another at any particular period in time, but they also give evidence of differences insofar as changes from one period to another are concerned. In Iowa, for example, available data suggest that the ratio of current gross cash rent to current valuations varied from somewhere in the neighborhood of 6 to 7 per cent at the beginning of the century to slightly over 3 per cent at the peak of the land boom in 1920, and that thereafter it gradually rose until for the past 5 or 6 years the ratio has stood at approximately 6½ per cent. Data are not available as far back as 1900 for other areas, but other Middle Western states have shown substantial evidence of similar trends since 1921, although some variation between states is evident.

That a similar trend has existed since 1920 in *all* other areas, however, is not at all assured. For example, in the Arkansas delta where in 1920 the ratio of cash rent to value was in the neighborhood of 10 per cent, data for 1930 suggest little or no significant change. It should be mentioned, of course, that the published data of the 1930 census do not afford quite so specific a comparison as that of Chambers' analysis, but it is believed the comparison is reasonably accurate, especially since it is substantiated by data reported by the bureau's crop reporters.

The divergent trends to which reference has been made in an earlier section suggest the variations in circumstances that have been at work. Although summary statistics relating to general trends over considerable areas have a very definite sphere of usefulness, nevertheless they fall short of the more specific data required for an evaluation of the investment potentialities of particular areas.

Yet another angle of the problem arises. From the standpoint of the practical appraiser in the field, he must not lose sight of the prevailing prices being paid for land in the open market as indicated by voluntary transactions. If he fails to do so, he may lose out to his competitors in placing loans, or if he is appraising for public purposes such as acquisition he may spend an uneasy day in court to show why he failed to recognize the evidences of a free market. On the other hand, he knows full well that appraisers who depended largely upon sales values in the 1915-20 period lived to see their appraisals go sour and purchasers lose their farms because the market was wrong. Just so, the market has been wrong on other occasions, as in the Florida boom, and

in the stock market of 1929. Yet, to be thoroughly sure of his ground, no appraiser can materially disregard the evidence of actual sales nor the mature judgment of experienced observers.

In meeting this situation we perhaps need to consider various concepts of value. We are told for example that value is the amount of money for which a unit of a commodity is sold in an active market composed of willing, able, and informed buyers and sellers. On the other hand, we are told that an income producing good is worth the sum of the present or discounted values of the annual incomes. But of course no one can be sure as to what the future incomes will be, and the degree of uncertainty is greater for certain types of investments than others. Certainly, when one buys or sells property, he acquires or disposes of the right to the income stream from the property, and the price he pays or exacts is his estimate of the present worth of that income stream.

This concept is doubtless the basis for the well known capitalization expression, $V = a/r$, or a modification $V = a/r+i/r^2$ where i represents an annual constant increase in the annual return.

To assume explicity a knowledge of future incomes borders on the audacious, but to do so implicity, as when buying, selling, appraising, or lending on a farm, is commonplace. However, for the sake of whatever merit it may have as a tool of analysis, I should like to invite your attention briefly to a modification of Chambers' approach, which brings down to date one of the Iowa series of data which he used, as illustrated in Fig. 3.

Data on net cash rents from 1900-1935 have been discounted to each of the years 1900 to 1935. To take care of the rents for 1936 and the other years of the future, three different income levels have been assumed, ranging from $4.00 to $5.50. These discounted values have been plotted, the upper trio of lines representing a discount rate of 3½ per cent, and the lower trio a discount rate of 5½ per cent, these two rates having been selected as more or less extreme rates. The 5½ per cent approximates the rate on farm real estate mortgages during a considerable portion of the period under review, and the rate of 3½ per cent is assumed as more or less representative of fairly conservative investments.

These lines may, perhaps, be considered as representing the price which an investor could afford to pay for land if his money is worth 3½ per cent or if it is worth 5½ per cent. Under the varying assumptions, the graph, of course, is illustrative, since none of us is sufficiently gifted to know what income will be in

the future, but we may make certain assumptions just as the landbuyer must.

One of the most striking points evident from the chart is the comparison of the amount of variation in the line representing prices actually paid for land and the lines representing the prices investors could pay if they were to realize returns of 3½ or 5½ per cent.

The upward trend in realized values during the first decade obviously was in the direction of making an adjustment to the economic situation that was developing in the United States, but

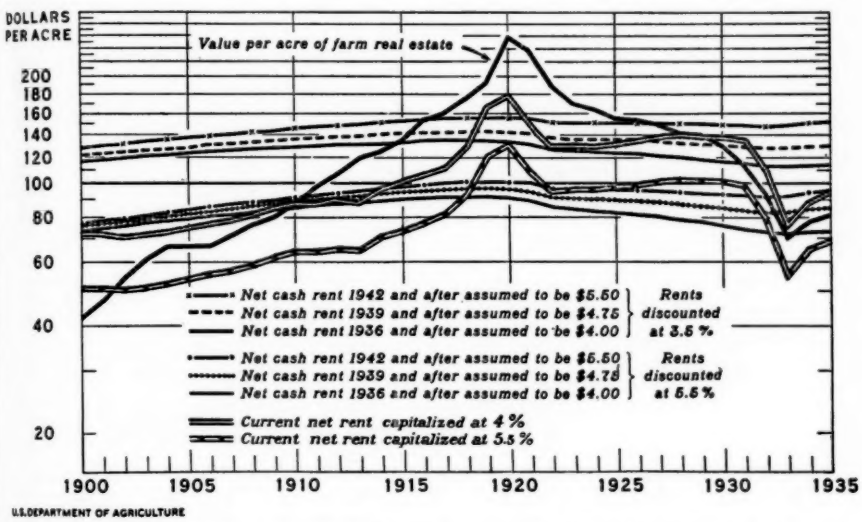

FIG. 3. Value of farm real estate and annual present worth of net rents under specified conditions, Iowa, 1900-35.

somewhere about 1910 or shortly thereafter the upswing continued beyond the limits that could be supported by the economic situation which actually followed. Now, we may ask ourselves, whether the capitalization rate corresponds to a more or less fixed rate, such as a mortgage rate of interest, or whether it represents the current and changing ratio of net income to current value. If we accept Chambers' suggestion that the capitalization rate is a relatively fixed factor and that the upswing after 1910 was due in considerable part to the expectation of a continually enhanced income, we should be interested that during the recent decline in values following 1930 and terminating in 1933, there was apparently no similar expectation that land values would decline for any extended period, for the ratio of net rent to value rose only to between 4.5 and 5.0%.

For comparison, capitalization of current net rents at 5.5% and at 4.0% are indicated on the chart. These perhaps help to visualize how greatly the fluctuations in current values exceeded those that could be justified on the basis of future earnings or even of the current earnings at a constant capitalization rate. In this connection it is interesting to observe that if values are regarded as the sum of the present values of future incomes, capitalized at 5%, then because of the discount factor, the income for the first 5 years accounts for only about 22% of the total value, and income for the next 5 years accounts for only about 17%, and so on.

This is a fact which reiterates the suggestion already made that the importance of year to year variations in income is often exaggerated. Unless, we assume that variations in current income are good indexes of the future, current values should not vary in direct proportion with current income.

In developing an analysis of the factors bearing on land values, especially with respect to application to appraisal, it is necessary not only to have regard for trends in the various factors such as rents, market prices and community appreciation or deterioration, but to recognize in addition that the relations between these factors may display trends having even greater significance than the individual factors standing alone. Only in this way may we make use of the evidence presented by the market, but at the same time protect ourselves against reflecting in appraisals those temporary fluctuations that have not stood the test of time. We may also protect ourselves against the dangers of assuming too much with respect to the capitalization rates appropriate to different areas.

I believe that as our agricultural development matures, it is appropriate for us to devote our best thought to developing a land value and farm mortgage structure that shall be sufficiently flexible to adjust to changing conditions as they are revealed, and that shall possess sufficient stamina to withstand acute shocks.

RATIO OF REGIONAL AVERAGE VALUE PER ACRE OF FARM REAL ESTATE TO AVERAGE FOR THE UNITED STATES

	1900 *Per cent*	*1910* *Per cent*	*1920* *Per cent*	*1925* *Per cent*	*1930* *Per cent*	*1935* *Per cent*
Cotton Belt	42.3	51.5	65.9	67.1	73.4	70.2
Corn Belt	188.9	210.1	247.3	211.9	194.4	186.4
Wheat Region	45.6	72.5	61.2	58.2	59.7	60.8
Dairy Section	156.9	113.4	107.4	128.0	138.4	147.9
Four Regions	110.0	112.0	119.5	114.6	111.2	108.8

Based on reports of the Bureau of the Census.
Prepared by the Division of Land Economics, Bureau of Agricultural Economics, United States Department of Agriculture.

APPRAISAL THEORY AND PRACTICE[1]

D. Howard Doane
Doane Agricultural Service

Theory should precede practice.

Sound practice rests on correct theory.

Until logical thinking creates the theory, practice must remain in the realm of guess and unorganized effort.

Surely those are elementary statements. Their general recognition and acceptance makes it unnecessary to enlarge upon them. This being true, it may be surprising to some but embarrassing to others of us who call ourselves appraisers, to admit that we have attempted to practice rural appraising for more than fifty years with no theory on which to rest it.

American rural appraisers have no generally accepted appraisal system. No appraisal theories have been established; none are recognized. The results flowing from this attempted cart-driving from the back of the horse accounts for many of the smash-ups of the last ten to fifteen years in the farm mortgage field.

If all this teaches but one thing it will have served at least one useful purpose. That lesson is that we can never become skillful enough practitioners to overcome the handicap of the absence of a theory on which to build our practice.

It is for this reason that I am genuinely pleased to speak on the "theory" of appraising. We have long neglected it. The approach is not easy. It leads to much discussion, some of which becomes heated. Much theory will be advanced which will ultimately be discarded. All theory must in the end stand the test of field use. In this crucible, the false, the valueless, will pass away and from a big input of theory we will finally have a small out-take of sound, worthwhile, dependable practice.

May I now turn to a brief recital of one attempt to create a bit of American rural appraisal theory.

In 1932 this Association joined with others in the creation of the National Joint Committee on Rural Credits. This committee appointed sub-committees to study and report upon various phases of rural credits. One of these sub-committees addressed itself to problems of rural appraising. That committee made its first report about two years ago. It was published in our Journal. Since that time, the Committee has continued its studies and is

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

now in the midst of preparing the first revision of its original report. We are hopeful that it will be ready for publication early in the coming year.

Let us now drop behind the scenes with the Appraisal Committee and note some of the things that actually happened there. Also review some of the studies certain individuals of the committee made for the benefit and help of the group.

The creation of an appraisal or valuation theory is no different in principle, I imagine, than the creation of the theory of physics or mathematics. In the remote beginning, the mathematicians had to create and agree upon a few basic definitions, next certain procedure was outlined and finally I imagine they had no more ground for saying that a certain crooked line should stand for 3, and another with a slightly different twist should stand for 2, than the fact that those assembled agreed that it should.

It was thus that the Appraisal Committee began. It seemed that we should define the thing we had come together to create and so we started with a definition of a rural appraisal, saying, "A rural appraisal is the definite, written, detailed opinion of an individual or group of individuals of the basic value of a rural property." Here two very important points appear. Both demand enlargement and further definitions.

It will be noted that the committee at once placed appraising in the realm of opinion. Of course, there were those who said it was otherwise, but after hearing all sides, it stood as I have stated it.

Next we ask what is meant by "basic value." This was defined as "The worth of a property derived from such economic elements as earnings, location, and home use."

With these two brief definitions I have gone far enough to provoke plenty of discussion, and demand much substantiation. In view of the fact that I am not attempting to explain or defend all that the Committee did, I will pass all but one point and use it only to illustrate how the "theory of appraising" was actually developed. I could have chosen many other points but this one will suffice for illustration.

You will note that the last definition stated that the worth of a property—its value—comes from but three sources. Surely, if the appraiser is to be thus limited, care must be taken that these three are correctly and soundly chosen. Let us take the one item of earnings, and test it carefully to see if it has a place in this important triumvirate. It will make a great deal of difference in the further development of our appraisal theory if we leave this

element in or throw it out. It will also be noted that it stands first in the list, and so by inference at least, it should be the element of worth, first to be developed in the creation of the value.

Now there are those who say that sales are the basis of value. Others, that location is the source of all value for is it not true that an identical piece of land is worth a few pennies when located in a desert, and worth millions when located in the heart of New York City. Then there are those who say that earnings play a part, but only as a guide or measuring stick for a value previously and otherwise established.

These arguments are not to be lightly brushed aside. Taken all together they claim many well informed adherents. If the committee is to proceed along sound lines, it must substantiate its position on this important point in a very definite manner. To do so it must search economic and appraisal literature carefully and thoroughly.

Let us go then with those who sought the facts and see what they found, for it is clear that we can make no further progress until this point on theory is settled. Here are a few of the facts we found:

W. G. Murray and H. R. Meldrum in their *Iowa Bulletin* No. 326, "A Production Method of Valuing Land," say on page 316, "Productivity is the most important factor influencing the value of agricultural land."

Dr. Conrad H. Hammar in his bulletin No. 229, "Factors Affecting Farm Land Values in Missouri," says on page 6, "The ultimate appraised value should be the same whether based upon earnings or sales, since it is an *axiom* that land has value only because it is capable of producing income or earnings."

S. C. Hudson in the August 1936 *Economic Annalist* of the Dept. of Agriculture, Ottawa, Canada, says in his article, "Some Problems in Rural Appraisal," "Land has value because it produces an income in the form of materials and services that satisfy human wants. This income may be material or psychic or both. It may appear in the form of the products of the soil, the situation factor, or the expected increase in income—the speculative factor. The task which the appraiser is called upon to perform is to determine that income and to express it in terms of a present worth."

One of the most definite and earliest statements which tended to associate earning value with land value was made in the passage of the Federal Farm Loan Act in 1916. In Section 771, paragraph 5, of that act, the framers said, "In making said appraisal, the value of the land for agricultural purposes shall be the basis of the appraisal and the earning power of said land shall be a principal factor."

I might add that although the act says "a principal factor," it mentions no other factors that by law are to be considered.

Dr. W. I. Myers, Governor of the Farm Credit Administration, said in circular No. A-4, "The present policy of the Farm Credit Administration

is to base its farm mortgage loans on values which can be sustained with normal earning power. Normal earning power is the best estimate that can be made of earning power not at the minute the mortgage is made but over the period during which the mortgage runs. This has been our policy in determining values during this emergency period and I hope it will be continued throughout the future.

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"I hope that we may have the support and the cooperation of educational agencies in stressing the relationship which should exist between land values and earning power."

One of the latest and most significant statements on the relation of earnings to land value is reported to have been made by the President when he called into conference a group of life insurance presidents during September, 1936. What is presumed to have been a reliable report from the conference states under the heading Land Values: "President also talked with insurance men about cooperation between government and private lenders to keep down loans on farms, but did not suggest any maximum appraisal basis as reported. He merely discussed the advisability of keeping loan levels at reasonable relation to earning power and paying less attention to the sale value."

It is interesting to note at this point that the organization supporting the largest rural appraisal organization in this country ties its views of value very closely to earnings. This evidence could not of course be overlooked by the committee.

In the Journal of the American Institute of Real Estate Appraisers for July 1935, Henry E. Reed, an appraiser of distinction on the western Coast says in his article, "The True Value of Real Estate":

"This country is beginning to recognize that the value of real estate is the capitalization, at the appropriate rate of interest, of its estimated annual net income in money, or equivalent amenities, for the term for which that income may be expected to continue."

There never has been any value in land other than that arising from its income or use.

The swing to the right for valuations based upon net income, or use-value, is a healthy sign.

In contrast with our complicated American techniques is the direct and simple British system of valuing real estate on the basis of its net annuity, or price earnings ratio.

Quoting British authorities he says: "The capital value of a town holding is solely the net annuity, or net annual income it will yield, and the probabilities which affect its continuance, multiplied by the number of years' purchase, at a rate of interest adopted by the appraiser.

"Stripped of its verbiage, the British method merely requires that the appraiser, in the exercise of the average ability and knowledge of his profession, shall estimate the fair annual net income for a property and how long the flow of that income can be reasonably expected to continue."

Irving Fisher says:—"In whatever ways the ownership be distributed and symbolized in documents, the entire group of property rights are

merely means to an end—income. Income is the alpha and omega of economics."

Quoting from Frederick M. Babcock's recent and widely recognized book, "Valuation of Real Estate," Chapter 12, "The Income Idea Is Fundamental":

"The future income stream has been declared to be the most fundamental fact of economic life. It is certainly the very basis of transactions which concern real estate value, and it would appear that future income could hold no other than the basic and fundamental position ascribed to it. If it is true that future income is primary and fundamental, then the value of real estate will have to be granted a secondary position. In this sense the property actually is the earning expectancy, and the capitalized figure —the total value—is a derived fact depending upon the future income stream in some manner.

"In fact we may say that one of the characteristics of earning expectancy is that it can be purchased for a present lump sum, and that the price required to so purchase a future income is proportional to the amount, character, and certainty of the earning expectancy. This is the fundamental, basic idea behind all sound appraisal methods. . . . Thus, income is the primary factor in valuation."

These few illustrations seem to point then to a corroboration of the Committee's view and the wisdom of the framers of the Federal Farm Loan Act, that "earnings shall be a *principal* factor." It appears to be a sound foundation on which to build a valuation *theory*.

Time prohibits examination of all the evidence and inasmuch as I am not attempting to prove a point, but simply illustrate a procedure, I will pass on to the second part of my subject, appraisal practice.

Appraisal Practice

A standard statement from those who collide with theory is, "Well it may be all right in theory but it won't work in practice"; or "A good theory but it isn't practical." When that expression is the result of a fair and complete practical test, it does indeed condemn the theory. It is well to be certain, however, that the objection is not being raised by one who is condemning your theory because it does not agree with his. Such an attitude is not of course to be taken seriously.

An appraisal committee is not presumed to create practice. It is concerned in it, only to the degree that the theory is correctly applied. The Committee as such has never suggested an appraisal method. Two members of the Committee on their own responsibility did outline one however, and I will present just the income aspect of it to show how the income theory was applied—is practiced.

EARNINGS, LOCATION, AND HOME USE STATEMENT

I—EARNING—POTENTIAL

Crop or Source	Acres	Yield per A.	Total yield	Price	Value	Rental share	Owner's part
1. Corn	104	46	4784	$0.42	$2009.28	½	$1005.00
2. Oats	52	40	2080	0.25	520.00	½	260.00
3. Clover	22	Cash rent		6.00	132.00	All	132.00
4. Soybeans	28.5	20	570	0.77	438.90	½	219.00
5.							
6.							
7. Pasture	18.5	Cash rent		6.00	111.00	All	111.00
8. Buildings							
Total Acres	225			Owner's total gross earnings			$1727.00

EXPENSE—POTENTIAL

	Amount	
1. Real estate tax at $1.11 per acre	$250.00	
2. Special tax	—	
3. Insurance	21.00	
4. Maintenance	110.00	
5. Management	175.00	
6. Fertilizer	—	
7. Seed	50.00	
8. Baling, threshing, shelling, del. charges, etc.	50.00	
9.		
Owner's total expense	$656.00	656.00
Owner's potential net earnings		1071.00
Typical potential net earning value when capitalized at 5%		$21420.00

The approach to this statement of income is this:

The operation factor is assumed as typical. This eliminates the first standard objection that the operator on the farm at the time of appraisal unduly influences the operation picture because it may be unusually good or very poor. Typical is defined as that which most often occurs.

The selection of the crops and the acreage of each is also based on typical. This again means that the appraiser must build his cropping system on that which is found most often in the community.

Yields are based on long-time averages. They must correlate and be in keeping with these tests or measuring sticks:

a.—The type of soil on which the crops are grown
b.—The actual averages for the county in which the farm is located
c.—The farm records if and when available
d.—Corroborating evidence from neighbors, mills, elevators, and landlord tenant settlements

Prices are averages for the county or region. The excellent use the Federal Farm Loan System has made of carefully prepared average prices is evidence of the validity and usefulness of this approach.

Crop divisions between landlord and tenant are based on typical for the region.

Cash rent or any other income item is treated from the standpoint of typical.

I will not go into the expense side of the earning factors for I am not attempting to show a complete appraisal. Neither will I develop those other very important and essential contributions to basic value, location and home use. For the purpose of illustrating both sections of my subject I need not go beyond the income factor.[2]

Even a casual study of this approach shows that it is well fortified with checks and balances. No figure is used without first giving consideration to *all,* and in most cases *many,* factors that influence it. An appraiser who reports that the soil has an index of productivity or cultivation rating of 5 or 6, both clearly below a rating necessary for safe and continued cropping, and then says the average yield is 40 or 50 bushels of corn, has made such an apparent contradiction that he cannot help but be conscious of it himself, and surely it could not pass a reviewer, without full supporting evidence.

To assume that an appraiser will use *all* the income factors most optimistically or conversely, is an assumption that tests and experience have not borne out. If he has the ordinary balance required of any good appraiser he shows it, even more clearly in selecting *unit factors* than he does when forced by our old lump-sum system to show it in one figure.

It will be noted also that this system proceeds step by step to a *developed answer.* To say, as we have in the past, that the appraiser can give the right final lump-sum answer with no evidence of development and then deny that his answer when carefully developed step by step is wrong because one step may not be exact, just does not make sense. Plain reason will not accept it.

To gain further evidence on this point a question was placed before an authority on psychology. He stated that the *developed* answer is more apt to be correct, than the one which goes in one step directly to it.

Other Objections

There are other objections to the application of the earning theory.

One is that it cannot be worked where there are no recognized landlord-tenant relationships. The answer to this is simply one

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[2] For a more complete discussion of the whole appraisal picture see report of the Appraisal Committee in *The Journal of Farm Economics* for May 1934, and article by the writer in the *Journal of American Institute of Real Estate Appraisers* for October, 1934.

of using all income and all expenses until equitable landlord-tenant relationships can be established.

Others point out the effect of selecting a too high or too low capitalization rate. The reply here would be that if any effect, at any time, in any way, in any appraisal system, gives effect to earnings, then the reduction of a net earning to a capital sum demands the use of a rate. A system which tends to bring the rate clearly out into the open where its effect can be seen by itself is certainly to be preferred to leaving it hidden as we have in the past. Careful definitions, limits for selection, and, as many do, select rates by area, are ways of overcoming some, if not all, of these apparent hazards.

It has been difficult to illustrate the necessary steps, and line of reasoning essential to prepare "theory" for a trip to the field without seeming to present it as an argument. I would have you view these remarks simply as evidence of all that the Committee, certain individuals, and companies had to do to test the theory. They show how much must be done to bring both together. If either is left entirely alone the result will probably be unsatisfactory. This means that theorists must be practical and practical men must do some theorizing. As evidence that the Committee held this view, I would call your attention to the wide representation on it. There were farmers, the borrowers whose assets are appraised, lenders whose funds are loaned, economists who try to see the middle ground, and farm managers and appraisers who work from the viewpoint of the operator or user of the product. These interests should be broad enough to build sound theory and practical enough to test it fairly and completely. Surely no better ground could be found on which to sow both the seeds of theory and practice, with reasonable expectations of securing a crop.

Those of us who have had a part in the seeding and cultivating are pleased to report that a crop is now being harvested. One company has well over 1000 appraisals based on the theory your committee has prepared. A number of others in the states and some in Canada are making excellent progress. I am sure I can speak conservatively and say that your Appraisal Committee has created an appraisal theory that in practice is now working successfully.

Discussion by C. H. Hammar

University of Missouri

My comments upon this excellent paper of Mr. Doane's are those of a man whose interest and work has been in land value research and who has

had little or no experience in specific appraisal. My discussion will resolve itself into the raising of points that may seem, initially, somewhat remote from the topic at hand but which are, I believe, nevertheless pertinent.

There are three points on which there must be some accomplishment in land value research if we are to attain the objectives in practice and theory that have been emphasized in both Stauber's and Doane's papers. The first of these points is in the determination of satisfactory appraisal technique and practice, or more generally, a broad knowledge of how to value land at a particular time. I feel that in this field we have in recent years been making excellent progress. We shall in the future, I feel sure, be able to distinguish good from poor land much more accurately than we have been able to do in the past, and will have available for the appraisers a set of criteria to be used as a basis in distinguishing significant aspects of land quality that will be acceptably excellent. We are rapidly passing out of a stage of adolescence and into one of sophistication in this respect. That there is much to be learned and new techniques to be developed has been already brought out in Mr. Stauber's paper, and Mr. Doane's paper is in many respects a complement of Mr. Stauber's in that it points to the establishment of principles based on the application of the knowledge gained by land value research. I shall not dwell upon this point longer, but want to pass to a second aspect of land value research in which we have failed to make appreciable progress.

There is little evidence that we are as yet much more adept at puncturing the veil of the future in respect to land income than we have been in the past. In other words, when we remove the restriction of the time element and attempt to forecast future values we are as much lost as we have ever been. Thus while we are becoming more sophisticated in determining the qualities of land, we are as yet practically defenseless in predicting what the general movements of land values, either up or down, will be in succeeding years. Yet, these general movements are a chief cause of confusion in the field and cannot be passed over. They are the reason that land value research of one year becomes so painfully obsolete the next. They catch the usual appraiser and land value researcher where he is least well prepared. They are the reason why land value research results have gained so little credence among farmers. Furthermore, they are of growing importance in an era in which agriculture in regions of the most productive land is subject to high fixed costs, and in which appraisals must often stand for decades.

There are some new developments that will aid us in conquering the serious problem that these general movements entail. Two are of particular importance. First, new lands are essentially gone. Second, population growth is slowing down and appears to be entering a period of much greater stability than in the past. At the transpiration of these developments land values in the United States should be more nearly like those in Europe where, as noted in the papers of both Stauber and Doane, they have been much more stable. On the other hand there is the growing rigidity of industrial prices that are apparently forcing the more fluid agricultural prices into wider cyclical swings and are, therefore, a factor contributing to increasing confusion in the land or real estate market.

I feel, as apparently Doane feels, that with available techniques we can appraise acceptably the productive capacity of real estate and, given

a set of prices, can translate this productivity into values. I feel that our safety margin devices can effectively cope with changes in these values arising from the effects of changing farming techniques, shifts in consumption, untoward circumstances of foreign trade and competition and the differential rates of growth in the efficiency of urban as contrasted to rural production. I am by no means convinced, however, that the appraisal profession and the staff of researchers in land valuation at large know enough about the factors underlying changes in the value of money to be able to establish a system of appraisals that will stand up under the destructive impact of general price level movements. We have made more progress, it seems to me, in determining the nature and extent of physical risks than we have in the case of economic risks.

There is a third problem not touched upon by either Stauber or Doane, that I believe, also needs our serious attention. It is an extension problem. Those who act without knowledge must act blindly. We have made little or no serious attempt to extend the knowledge gained from our land value research to farmers and those actively engaged in the buying and selling of land. Furthermore, as the facts brought out in this session reveal, the factors and forces influencing land values are complex and often subtle. It is not a type of information that is readily understood or easily passed from person to person even among those most interested in land purchases.

There are two phases to this problem. First is that associated with such phenomena as the Florida real estate boom, which is superficial, though not unimportant. Despite Mr. Doane's systematic and extensive portrayal of the idea that earnings underlie value, I cannot help but be impressed that values sometimes get widely out of line with earnings as they unquestionably did recently in Florida. An appraiser equipped only with the techniques arising from the analyses and deliberations of the appraisal sub-committee would be a lamb among wolves in a Florida real estate boom. Fortunately, movements of this nature are mere squalls disturbing temporarily, though somewhat acutely, the surface of the broad stream of land value events.

The second aspect of this last point relates closely to the general movements of land values in response to changes in the value of money and here again I find myself referring as much to Stauber's as to Doane's paper. Indeed Stauber seems to hope, as no doubt do many of us, that a sufficient amount of information may be passed on to the land or the real estate market so that a greater degree of stability will arise from the greater sophistication in that market. My only comment here is that any such effect will arise, if ever, only after a much greater marshalling of research and extension forces than has ever been remotely approached in the past. One cannot help comparing the small effects upon stock market operators of the large volume of statistical information available to these operators, and the much greater general use and knowledge of that information that these operators possess as contrasted to the often niggardly amount of information farmers have available in determining what they should pay for land. Yet economists had little if any appreciable effect on curbing the excess of the securities markets.

Can land value economists hope to have even as great an effect on the mass action of people in a market less well organized, much less cen-

tralized and, if anything more diverse than the securities market? We have much to do if we are, in the future, to be anything but quite helpless in this matter. I have a feeling that an acute aspect of this type of mass action is at present transpiring. Land or real estate values are everywhere rising, the rise in the corn belt is at a rate approaching that of a boom. Iowa values have risen 26 per cent from 1933 after having fallen 50 per cent from 1929 to 1933. Can any appraisal based on earnings hope to have a continued standing in the face of such movements?

I hope that my attitude of skepticism has not been too harsh and too unmitigated. And I hope also that I have not misstated the problem or made it more difficult than it really is. Unquestionably this price level problem is somewhat beyond the scope of the appraiser and researcher in land valuation, and as a corollary, many problems besides those in the land value field are dependent upon its solution. Perhaps some progress might be made if some organization or committee, either separate or associated with the sub-committee on appraisals under Mr. Doane's direction, would undertake to look somewhat further into the causes of these general land value movements. Perhaps this committee should also consider the further problem of making land value research results more widely available to farmers.

Discussion by G. S. Wehrwein

University of Wisconsin

The papers by Mr. Stauber and Mr. Doane center on the problem of converting a stream of expected earnings from land into a fund of value. The relation between income and value is fundamental. Once a price has been paid it is only the earnings which can sustain the investment and the same income must also support the investment in the home and the buildings as well as pay for the advantages of location in so far as location is not incorporated in the income itself. If investors and purchasers of farms would keep in mind this relationship perhaps there would be less temptation to pay a price for land which earnings cannot justify. Caution of this type might do much to reduce the swings of the pendulum of values.

The problem, however, is to obtain the outward evidences of value since we know so little about land income from surveys, records and accounts. And even if we have past records they can only be used as a basis for projecting future incomes. The appraiser must not only be an artist but also a prophet. Suppose one appraiser used the income method and filled in the table Mr. Doane used with the prices of farm products as received during the war period and another had used current sales, reflecting the judgments of buyers and sellers at the time, neither of them would have foretold the drastic drop in the value of land after 1920. Sales prices are mere bets that the future prices of farm products will justify the prices paid for the land.

All students of land values are aware of the uncertainty of the factors involved in the simple $v = \frac{a}{r}$ formula. Both the series of annual incomes and the future interest rate are unknown. The appraiser has to use physical and outward evidences of value among which sales values are not to

be disregarded. Perhaps we need to attack the problem from several angles: (1) Sharpen our knowledge of the external evidences—soils, depreciation of buildings, effects of erosion, distance from markets and highways, etc.; (2) Increase our knowledge of costs, income and other direct factors bearing on earnings and their trends; (3) Give thought to the question of the proper capitalization rate.

Mr. Stauber mentioned the formula for increasing or decreasing values. This formula is very deceptive. It assumes that the i (the anticipated annual increase or decrease) will go on indefinitely into the future, which is contrary to actual conditions. What is needed is an appraisal of value for a property with increasing or decreasing rents over a reasonable period with rents stationary after that. The difficulty with the formula is not discovered as long as the assumed increase or decrease is small, but if it is a large sum either excessively large values or values less than zero are obtained.

LAND VALUATION IN GERMANY[1]

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In Germany hardly any other subject within the field of agricultural economics can compete with land valuation as far as the clash between opposing theories and the controversies over the technical approach are concerned. Perhaps the subject of farm accounting might be compared to it because there too for many decades two schools have been carrying on their combat, one defending the necessity of measuring the net return of individual branches of production within a farm (Howard and Laur), the other asserting that since the farm is an organic unit only its total net return can be measured while the other questions matter only for the organization and management of the farm (Aereboe). But the incomparably greater importance of land valuation as the foundation of credit and taxation and its close connection with the maze of general economic theory on value and prices have given the discussion of land-valuation the fame of something like a theory of relativity in agricultural economics. Most of the conflicts, unfortunately, find only a scarce precipitation in literature, while they are permanently most influential in the policy and practice of appraisal of the farm mortgage institutions. To give a résumé of German land valuation is, therefore, a task that can hardly be expected to be solved in any sense in a correct or comprehensive way. It will be my endeavor to present, besides a brief summary of the status of the battle between the opposing schools, a few selected observations from Germany which also may indicate which kind of problems receive the most attention. This review of land valuation is strictly confined to the German experience and does not attempt to draw conclusions for land valuation in the United States where a number of basic conditions are different and where some presuppositions have different aspects.

Appraising farms and agricultural land for the purpose of taxing authorities, of creditors, buyers of farms, landlords or tenants, successors or coheirs, for the courts of other agencies, has, since ancient times, been an art practiced by a guild of elderly and experienced men whose members did not discuss in public any details of the technique they applied in their magic craft. But their common property was certain methods and rules

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

of thumb for accumulating and composing a collection of data from which a sum supposed to be the appraised "value" was finally deduced. Agricultural science followed their trail, accepted their empirical knowledge and supplied economic reasoning ex post and theoretical support ad hoc for it. Albrecht Thaer[2] was among the first German scholars who discussed and supported the method of the capitalization of assumed possible revenues.[3]

This was the approach of science during the first decades of the last century. Toward the end of it another outstanding scholar in farm economics, Th. von der Goltz, developed the same method into an elaborate scheme by contributing improvements in many details, drawing upon the achievements in the science of farm management and especially farm accounting. But although von der Goltz gave the final touch to the empirically created method, he did not question its soundness and contemporary adequacy. Until the beginning of this century a rather peaceful unity existed between scholars and appraisers, and between science and practice. The method, varying widely in detail but uniform in essence, was still based on the principle of concluding from the estimate of possible average yields that a certain average revenue could be derived from the farm to be appraised and then of capitalizing that revenue on the assumption of an average interest rate. The best description of the procedure is to be found in von der Goltz'[4] book, the standard work of its time on land valuation. In brief the capitalized revenue method of appraisal, as it is conceived in Germany, provides for an estimate of the possible normal yield of each field on the assumption of a certain standard rotation, a certain organization of the farm typical of the district and of average fair management. The assumed yields are multiplied by assumed average prices of the produce as received by farmers at the time of the appraisal. The result is supposed to represent the normal gross return. Then average normal expenses of the farm, including all repairs of buildings and inventories, have to be calculated and the sum is deducted from the gross return. Finally, taxes and interest upon the operating capital, depreciation for buildings and inventory, as well as a security reserve for unexpected hazards, are de-

[2] Thaer, Albrecht. *Versuch einer Ausmittelung des Reinertrages der produktiven Grundstuecke.* Berlin, 1833.

[3] See also: v. Flotow. Versuch einer Anleitung zur Abschatzung der Grundstucke, Leipzig, 1820. Block. Beitraege zur Landgueterschaetzungskunde, Breslau, 1840. Birnbaum. Landwirtschaftliche Taxationslehre. Berlin, 1877. v. Pabst and v. Hamm, Landwirtschaftliche Taxationslehre. Berlin, 1881.

[4] von der Goltz, Freiherr Theodor A. L. *Landwirtschaftliche Taxationslehre.* 3rd edition, Berlin, 1903.

ducted and the remaining normal net income capitalized according to the prevailing normal interest rate.

What science contributed to the final form of this traditional method of farm appraisal was mainly the increased accuracy of the intricate system of guesses due to more knowledge and better material derived from research in farm cost accounting. But terms like "possible normal yield," "normal management" or "average fair management," "average normal expenditure," "average normal prices" are after all "rubber-concepts" which may be stretched by the appraiser at random. A side glance at the unending quarrel among German farm accounting experts over the definition of the revenue or net return of farms shows how solid the ground for appraisals with that method is. Science tried to induce the appraiser to eliminate accidental features depending on the management at the time of the appraisal, but it did not eliminate the greatest deficiency of the method which is rooted in the fact that it fails to base the estimate on something that is objectively measurable.

It was Friedrich Aereboe,[5] the follower of von der Goltz and the dominating thinker in German farm economics during the last generation who, as the first and most outstanding scholar,[6] blazed new trails in German land valuation and who made progress in the scientific approach to appraisements. In a bold book that superseded that of von der Goltz and still is the standard work on the subject, Aereboe condemned the method of capitalized revenues as one which is "practically unappliable and theoretically untenable." His plausible explanation for the miracle that the majority of appraisers using the method he condemned made more or less useful appraisals was that at the very beginning of each appraisal, experienced men had a preconceived belief concerning sale prices of farms in the district and that they skillfully adapted their elaborate calculations to that "lump sum guess"—thereby secretly, or perhaps unconsciously, reversing the procedure. Aereboe's strongest objection was that the revenue method neglects the most important factors making for the level of farm and land prices and that it is based on the misconception that sale prices are mainly determined by the net return that can be derived under the accidental circumstances prevailing at a certain moment. He asserts that the same land

[5] Aereboe, Friedrich. *Die Beurteilung von Landgütern und Grundstücken.* Berlin, 1912.

[6] Here Walter Rothkegel, the land-valuation expert of the Reich's ministry of finance, and author of several volumes on the subject, has to be mentioned as a scholar who recently made considerable contributions. Rothkegel, W. Handbuch der Schaetzungslehre fuer Grundbesitzungen. Berlin, Vol. I, 1930; Vol. II, 1932.

in a certain market location has at the same time the same price as that for all farms of the same size, location and quality of soil, no matter what the net return may be. Differences in the price of farms with the same quality of land are therefore mainly caused by the differences in the buildings and inventories, the latter including the so-called field inventories which are the unexploited expenditures made during the current crop year in the fields. The revenue method, however, does not allow for these essential differences. Aereboe criticized further the fact that almost every one of the items used in the calculation of earnings is arrived at by an arbitrary guess and that the necessary untouched-up source material for measurement is not available; he also felt that if it should occasionally be available, use of it would absorb too much time and would therefore be too expensive, and that ultimately there is no possibility of coordinating the appraisals of different farms by different appraisers, or of checking them according to a common denominator.

With reference to the criticism that no source material is available and that there is hardly any standard of comparison it should be mentioned that German agriculture is so greatly diversified and individually adjusted to natural and economic conditions that one very seldom can find two farms of equal size, type and organization, a situation that seems to differ profoundly from that in certain regions in the United States.

It was in connection with a reform of the system of land valuation for the Landschaft of Brandenburg that Aereboe developed a scientific foundation for the principles of the "capital appraisal." In essence the method had been known before, but its importance had been minimized by the science of farm economics and nobody had dared to apply it openly in practice. Aereboe did not assume that the practice of appraisal could be developed according to measurements which could be applied mechanically. But the immense progress he made consisted of the elimination of the unlimited guesswork of individual farm appraisals which were not supposed to be connected with each other unless we accept the experience and the routine of the same appraiser as a coordinating factor. His endeavor was to find at first the various levels or one might say, the "topography," of farm real estate prices at a given time. This assumption is based on the underlying philosophy that sales prices are the best visible and perhaps the only measurable expression of the majority judgment of experienced farmers on the potential future revenues and other implications of farm property. The first requirement of a

workable system of capital value appraisal is therefore exhaustive and always up-to-date statistics of sale prices. On the basis of the structure of prices for complete farms thus discovered, Aereboe tries to determine the underlying and considerably more stable and more permanent level of bare land prices for the whole country. The term "bare land" means the land only without buildings or inventories. The natural utility and fertility of soils combined with their location are the factors determining the differences of bare land prices.[7]

Therefore the second basis of a sound appraisal system must be a reliable and objectively recorded soil survey with the most precise and detailed classification obtainable. With the records of such a soil survey at hand bare land prices could be derived from the statistics of sale prices of farms if the disturbing factors of the value of buildings and inventories and of the location could be measured and eliminated. To achieve this we need the fulfilment of a third requirement, namely, a permanent statistical analysis of the largest number of appraisal reports concerning the value of buildings and inventories, as well as the location, for the sake of determining the price level of unimproved land of each class of soil. The classified price schedule for unimproved land can be made up for small districts by subtracting or adding from sale prices for equipped farms the proportion of the price attributed to super or subnormal equipment or super or subnormal location and by breaking the remainder down into classes of land.

Aereboe thus creates an objectively based and measured general framework for individual appraisals. In an elaborate and exhaustive analysis of the factors affecting the price of land, he indicates how the appraiser has to fit his object of appraisal into the general structure of land and farm prices prevailing at the time of the appraisal. Since the principles of valuing the buildings and the inventory do not offer real difficulties, there remains primarily the problem of judging the soil correctly. Here Aereboe not only admits but lays the greatest stress upon the importance of determining the physical yield of soil as precisely as possible and suggests the most accurate exploitation of the results of local yield records of farms as well as of the empirical knowledge of farmers. The other factor of site and location, meaning not only distance to markets or railroad stations, but the quality of the roads and the internal communication facilities within the

[7] Under utility and fertility of soils the totality of all natural factors is comprised including, besides the physical, chemical and biological condition, also the climate, the topography, the presence of rocks or any other factor that influences the productivity or workability of the soil.

farm as well, is again measurable through the sale price statistics of farm real estate and the elimination of the other factors of buildings, inventories and improvements.

I mention these rather well-known cornerstones of Aereboe's principles of land valuation simply because according to my knowledge no attempt has yet been made in Germany to go beyond his analysis and his scientific approach. In my own judgment based upon experience in the practice of appraisal, and that of a large staff of college-trained appraisers who cooperated with me, this method of land valuation is the only one that is fit for quick application on large scale and productive of reliable results without excessive costs. Theoretically it appears to me the only method that can claim to operate on a scientific basis. Unfortunately the technique of quantitative statistical analysis, especially multiple correlation analysis, has only been mobilized in favor of the method of capital appraisal by the Minister of Finance whose materials are not accessible to the public or even to the mortgage banks. Multiple correlation analysis of sales price statistics of a good soil cadaster and the records of appraisers' reports on values of inventories, buildings and the location, combined with the determination of the probable error, promises to contribute excellent keys to the discovery of the bare level land values. Moreover, statistical analysis promises most refined tools as soon as test districts with equal soil qualities, equal systems of farming and almost equal market locations are available. (Such conditions are, e.g., not infrequently to be found in the U.S.)

It may be seen at a glance that the procedure of appraisement as I have just described it is hardly something that can be practiced by independent individuals. Unless they have at their command most unusual resources, they will not be able to fulfill the preliminary requirements which are necessary to build up a frame for valuation and always to keep it up-to-date. In this respect the capital value appraisement differs fundamentally from the capitalized revenue method. The latter is essentially individualistic and permits valuation to be stated immediately on any farm. It only requires that the appraiser be able to estimate the possible yields, gross returns and costs, which may be an almost unsolvable problem in itself, but does not require any knowledge concerning the level of values or other links of the farm with the environment.

The German practice of appraisals is far from being uniform.

Appraisals for the information of private buyers, for purpose of litigation, or for condemnation purposes, are still largely based on the method of capitalized revenues. The valuation for mortgage credit has adopted more progressive methods, especially in the organized agricultural mortgage system. But even here the methods vary widely. In fact, the condition should be just the other way around since mortgage creditors invest only up to a certain percentage of the appraised value, but the buyer takes the risk for the whole price. For this reason the method of purchase appraisal should be considerably more precise and elaborate. A collection of instructions concerning appraisments issued by the leading German farm mortgage banks reveals that some banks combine both principles by advising their appraisers to derive the land value from sales prices, at the same time permitting them to take refuge in capitalized net return values in case sufficient information on sales prices should be lacking. Some banks apply the method of capital values by permitting only a certain price per hectare for each piece of land of the same quality and forbidding any additional valuation for buildings, equipment or other factors. In other words, they want to have all the other factors affecting the total value of the farm integrated in and represented by the value of the classified lots of land. Other banks have the land appraised under the assumption of normal buildings and inventories, according to the organization of the farm, with final addition or subtraction of assets above or below normal for special types of farms. Again, other banks compose the total capital value by adding the value of buildings and inventories to a much lower value for the classified bare land. In principle there is not much difference between the method of including the superstructure of buildings, inventories and other assets in the bare land values, either with or without final corrections, and the other method of separate valuation for unimproved land and equipment. In the first case the proportion of the value of buildings and inventories is distributed pro rata to every acre of land under the hypothesis that the land has its value only in combination with the necessary equipment, while in the second case fictitiously low land prices are applied under the hypothesis that the equipment represents the more essential factor in the total farm price. To me it makes more sense to assume that land constitutes the value, provided that the means for its use, like the buildings, implements, livestock, etc., are attached to it. Technically I prefer this method because it can be more solidly based

on sales price statistics. The use of detailed corrections for above and below normal equipment has on the other hand the advantage that the appraiser is forced to give detailed verifiable explanations for the appraisement of exceptional values.

Many farm mortgage banks deduct from the appraised value the capitalized value of the permanent duties, levies or fees—state, provincial, community—or taxes for schools and churches imposed upon the farm, as well as the premium for fire insurance on the buildings and inventories and contributions to improvement corporations or dike associations. Usually their multiplier for the capitalization of these levies is 20, although the interest rate may be much higher than 5%. This method of deduction is applied to capitalized net return appraisals as well as to capital appraisals.

If we ask why there does not exist more uniformity in the methods of appraisal within the mortgage credit system, the only answer is that the long experience of the mortgage banks and their routine method of avoiding losses—which consists largely of a supercautious limitation of the creditable percentage of the appraised values—has made the shortcomings of the methods of appraisal and the prevalence of merely empirical knowledge less felt. But there cannot be any doubt that it would have been much more to the interest of the farmer if a more modern and scientifically managed system had been applied more uniformly. Because it would have enabled the creditors to grant more credit to the best risks without raising the risk premium.

In the realm of farm appraisal for credit purposes it is worthwhile mentioning that certain mortgage banks have adopted the method of determining two values: 1) the "normal value" which is supposed to be the sale price that may be expected in case of an ordinary sale with sufficient time to find a buyer and without financial pressure upon the seller; 2) the "security value" or forced sale value. The assumptions underlying the estimate of this depressed value vary widely. Some banks instruct their appraisers to suppose when appraising this value that the farm has been stripped of a good deal of its liquid assets such as livestock, and in general has deteriorated under the strain of the operator's financial distress. Others want in addition to have it assumed that the market has also deteriorated. In general one may say that there is no standard method for finding the "security value." This secondary value is merely derived from the normal value after more or less careful and more or less pessi-

mistic consideration of the farm's special risks. Even when the appraiser is not asked to guess the security value, the mortgage banker operates according to a similar conception of value because he is mainly interested in knowing how much he would get in case of foreclosure. Therefore it is natural that he also tries to obtain an opinion from the appraiser. But, strictly speaking, the security value is nothing that belongs to land valuation proper. It is a forecasting of future risks and losses that might occur under entirely unknown conditions. It deals with the happenings within an enterprise in case of distress. Since the shrinking of assets and of sale prices is a continuous process much depends on the length of time that is assumed to have passed until the "security value" shall have replaced the normal value.

The last depression threw new light on the concept of the security of foreclosure value. Farms die rather slowly unless the creditor halts the operation by force. While privately owned industrial enterprises usually do not survive a single year of heavy losses if they have no reserves, farms under similar conditions often continue to operate for three, four or more years. I have known large German farms which were 200% indebted and operated four years longer under heavy losses. Such farms consume a good deal of their substance. They stop any repairs to buildings or implements, stop any renewals and slowly liquidate their livestock and stores. The more of such consumable substance they possess, the larger is the spread between normal value and security value. The most permanent and indestructible value is, after all, the value of the land. The spread between normal value and security value also indicates therefore the proportion of the total value represented by land, or vice versa, the degree of capitalization and velocity of turnover.

The last business depression in Germany had its prelude in the agricultural depression which began in 1927 and 1928. It ended ultimately in a complete disappearance of demand from the farm real estate market in most parts of the country, in wholesale default on taxes and interest, and was relieved by a moratorium for farms and even more radical measures, such as the hereditary homestead law. During this period prices of foreclosed farms under auction went so low that often the owner of the first mortgage, who had lent up to 40 per cent of the former appraisal value, lost a part of his investment. This was something that had not been experienced since the depression following the Napoleonic Wars. It became evident that the steady up-

ward trend of land prices for a century, which had slowed down at times but had always continued, had been more important in the past than the accuracy of the appraisals. The increasing land rent added a small annual security for the mortgage creditor and concealed the mistakes of appraisals, if they were not outrageous. No wonder that under the depression of 1928 and succeeding years creditors also began to blame the principles of land valuation for a part of the misery. In general the depression has caused unusual confusion about this very subject.

With the destructive influence of high taxes and high interest rates a deflationary course of prices and a restrictive credit policy, the whole structure of agricultural assets or real estate prices collapsed. Creditors, foremost among them those who had extended short term personal credit, but also mortgage banks, wanted to be informed about what was happening and called for the appraisers. The result was that the appraisers did exactly what they should have done: they defined new values which were in accordance with the new lower price level as it could be ascertained at the time of the appraisal. Finally, when normal sales of farms stopped almost entirely and only forced sales went on, with the mortgage holder as the only buyer, such appraisals lost their validity more and more. The defenders of the revenue appraisal have used this as an argument against the capital appraisal, pointing out that under such conditions the capital value appraiser is lost. To my mind the opposite more nearly approaches the truth. The revenue appraiser under such conditions arrives at negative farm values which do not give us any better information and are, moreover, in contrast to even such abnormal market conditions as described.

As an emergency remedy mortgage banks adopted finally the method of having the farms of their defaulting debtors investigated and calculating tentatively how much interest the farm could possibly bear over one year. This calculation was also taken as a basis for conciliation arrangements or even for refinancing. Again this procedure has been used as an argument in favor of capitalized revenue appraisal. To my mind such a comment indicates a certain confusion because this procedure lies outside the proper field of valuation.

If I try to survey the experiences of the last depression and their meaning for agricultural valuation, I feel it most important of all to draw clear lines of demarcation between various activities which are closely related to one another, that have to

be coordinated in practice and which are therefore often confused. I refer to:

I. Land valuation.
II. Research on the farm real estate market.
III. Agricultural credit control.
IV. Credit policy.
V. Foreclosure and conciliation policy.

There should be a plain distinction between the appraisal and measures of credit control. Both are tasks for trained experts with a profound knowledge of the principles of farm management and of appraisal. The appraisal should try exclusively to fit the individual farm as correctly as possible into the structure of farm values at the time of the appraisal, as manifested in the sale prices of farms and as it is reflected also in land rents. In addition farm appraisal should record as many data on the farm as possible to enable a reconstruction of the conditions existent at the time of the appraisal to be made at any later date. If the appraisal was good at the time it was made, it may also serve as good source material for a later judgment. Changing profitability of farms at large due to changing cost factors or changing prices for farm produce, or fluctuations in the farm real estate market, affect the total structure of land values, moving it up or down. They used also to cause structural dislocations within the level of land values as do other dynamic forces. Germany's agriculture, however, has for a long time ceased to have any problems of migration. Agriculture is permanently settled and since no soil erosion or soil depletion is noticeable, and since, moreover, farming is in general mixed farming with heavy use of manure and fertilizer, there is no problem of local or regional shifts in the yield capacity of soils that might interfere with land values. Dislocations of the level of land values are therefore brought about mainly by the increase in value of improved soils and the lagging behind of the value of land, the yield capacity of which is not improved at an equal rate, or by public improvements and more efficient connections with markets.

To observe such changes in the entire economic situation and in the real estate prices affecting the individual farm which has been appraised is the task of another department, namely that of real estate market research, which bases its permanent observations not only on the supply and demand factors but also on the agricultural situation, on the situation in the mortgage credit market, and on the statistics of bankruptcies.

But suppose the mortgage banker has on his desk the original appraisal now several years old and a very convincing report on the changes in the real estate market since the date of the appraisal. He will probably desire still more information, especially if the latter report indicates important and perhaps dangerous changes. He wants to know what has happened to the farm itself, how it is operated, whether the internal conditions that were of determining importance for the appraisal have changed or not, whether some other factors which are beyond the operator's control have changed radically, e.g., whether a former railroad freight station has been closed. All this information has nothing to do with land valuation unless the banker decides that he wants to have a new appraisal. Probably he will not care to undertake this for it would be too costly. What he really wants, especially in depression times, is something that is called "credit control" in Germany. This is more or less a checking over of some of the fluctuating assets of the debtor farms, and of their functioning, and it includes a survey of indebtedness. In times of accumulated risks it has to be repeated. Credit control does not unconditionally require a local investigation. But it is the task of credit control to bring up to date the judgment of the banker which so far has been based on the appraisal alone.

Appraisal, real estate market research, and credit control may perhaps be practiced by the same men. But if we do not want to lose our way within the maze of problems suggested by the subject of land valuation we have to keep the demarcation lines clearly in mind.

The other activities I mentioned as related to appraisal are the credit policies of the bank which decide to what extent the appraised values are acceptable as a basis for lending, how the risk is estimated, what percentage of the value is granted, and what kind of special conditions will be imposed upon the borrower. Such special impositions in Germany usually include submission to any requirements of credit control. The last field of activities strictly to be separated from the topic of valuation is the entire policy of dealing with acute risks, beginning with the default of principal or interest payments. Anything in connection with foreclosure or the preparation of a plan of conciliation and the scaling down of debts, except a new appraisal, is outside the field of land valuation. Such an appraisal can not go beyond the determination of the location of the individual farm within the prevailing price structure on the real estate market. If the appraiser comes to the conclusion that there is no clue to the price

structure he must refrain from appraising. That is to my mind the only possible conclusion. The last depression in Germany has proved such conditions may arise. If the mortgage owner decides nevertheless that he wants to sell the farm at a certain price or that the farm should be refinanced under the hypothesis of a certain value, these are assumptions which are not necessarily linked with valuation. Such decisions have much more to do with the individual ability of the borrower to pay interest, or with a prognosis of the future profitability of farming. Forecasting is, however, not the task of land valuation. Though farm real estate prices are to some degree an expression of a vague guess on the part of a majority of buyers as to the future profitability of farming based upon experience in preceding years, it is only the duty of the appraiser to recognize the collective result of such prognoses, namely land prices; he must refrain from forecasting himself.

But the importance of the recognition of demarcation lines between the fields of activity relating to agricultural credit goes even beyond the realm of theory where it helps to avoid confusion concerning the principles of land valuation. I daresay that within the credit administration of a central mortgage bank it should be the adopted rule that those active in the valuation of land should not be expected to or entitled to be active in the granting of credits, nor should they be the ones to operate the credit control, because all three duties will suffer. Even the employment of appraisers in the real estate market research is impractical. Both activities require different scientific backgrounds and training.

It has been a definite advance in Germany that, since the War, an increasing number of men with the best college training available have been appointed as appraisers and as heads of the departments of land valuation in mortgage banks. Since the banks have made careful choice among applicants, preferring those who, besides their graduation from college, have had the most extensive experience in practical farm management, this experiment has proved very successful and the trend is definitely toward the appointment of more college graduates.

German agricultural credit in general, as well as agricultural mortgage credit, is decentralized in conformity with its old tradition and unequal growth. Each one of the major mortgage banks has its own tradition and capital of experience. Each of them has its own ideas about land valuation which reflect and influence the principles of credit policy. But within each bank we find the same

principle applied, which is rather important for the homogeneity, and thereby for the reliability, of land valuation. Each bank tries to eliminate the disturbing factor of the personal inclination of the various appraisers. Even the most competent and perfect appraisers will differ in their judgment and in the final values they find. Therefore the appraisement of each of them would constitute a unit by itself, and would establish a special level of values. But there would be considerable discrepancy between the planes of values of various appraisers. This fact is well known in every mortgage bank. To overcome this disadvantage it is a common practice of the heads of the appraisal departments to have meetings of all the appraisers and to organize common appraisements of the same subjects with subsequent open criticism and discussion. These conventions tend to coordinate the appraisements considerably.

Such an administrative coordination of the appraisements is most desirable. The best it can achieve, however, is that all the appraisals made at the same time are fitted into the same "topography of farm real estate prices." Any attempt to go beyond that aim and to try to diminish by a coordinated appraisal policy the unavoidable risks of losses in the mortgage business caused by such cataclysms as those which we have experienced during the last depression can only be compared to the idea of fighting depressions through business research. The risk of losses in a deteriorated real estate market can only be faced by policies that cure the evil itself.

In concluding this discussion of the experiences with land valuation in Germany, I should like to say that what we need is a better scientific foundation for capital valuation. By such a scientific approach I mean better and more comprehensive sale price statistics and their exploitation by methods of mathematical analysis, a more exhaustive exploitation by statistical analysis of the material to be found in existing appraisement reports, a more elaborate and well-planned survey of the soil, pointing out its possible yield exclusively from the standpoint of farm management. Moreover, we need better measuring rods for economic location with due regard for roads and railroads. We also need better measuring rods for appraising buildings and inventories as factors affecting land prices. There is a vast field for methodical research and for cooperation between the fields of farm accounting, farm management and land economics. The practice of land valuation will always be dependent upon an unusual combination of skill and virtuosity which still leaves it somehow

within the realm of an art—just as the work of a good surgeon still belongs in that category. But this should only impose a more pressing responsibility upon the science of land economics to eliminate guesswork wherever and whenever it can be supplanted by measurement, and to educate those who are practicing land valuation to be good artists.

Discussion By Charles L. Stewart

University of Illinois

The language barrier has been as unfortunate for progress in the science of farm appraisals as probably in any other field. Most appraisers have not only not been linguists, but by practical limitations, have been localists as well. Material in English does not have to come from England, Australia or Canada in order to be disregarded by many in the United States. It needs only to come from another part of the United States where it is to be assumed that conditions are different from those in which appraisers are being pressed to produce reports on two or more farms a day. Even in Germany, as Doctor Brandt has pointed out, publications have afforded inadequate reflections of the experience of individual workers in farm land valuation (agrotimesia, as some Europeans call it). The same seems to apply in other parts of Europe as well. It must be obvious that students of appraisal in any part of the United States can profit from acquaintance with the problems posed for answer by appraisers in Germany, the procedures developed for central office calculation and check and the technic employed by appraisers in the field.

Dr. Brandt found it necessary in the interest of brevity to omit much that it would have been interesting to hear about cadastral assessments in that country. The soil assessment of 1861 in Prussia was set up with no other original purpose than that of taxation, but its usefulness for other purposes was demonstrated. Similar multiple-use applications were made of the Mecklenburg Scheffel-Saat ratings of ritterschaft properties in 1755. These ratings were utilized not only for tax assessments, but for credit valuations, for establishment of legal loan limits, for estimating of domain-lease properties, and as late as 1921 and 1922 for levying a grain tax.

The German Empress Maria Theresa, who died in 1780, is credited by Italians with having rediscovered in the Milanese tax book "the first tax list, in the Roman pattern, which in turn became a model and example for all modern improvements." This statement, quoted with apparent approval by Dr. Guiseppe Antonelli, leading contemporary authority on farm appraisals in Italy, follows two striking paragraphs in his volume on "Rural, Civil and Cadastral Appraisal."

"Appraisal is an ancient art, starting from the time when men, needing to exchange goods, sensed also their preliminary valuation, even though abridged and empiric.

"Later it assumed a scientific character, when it was applied to the cadaster (tax book or tax roll) of the survey type, the first conception of which occurred in ancient times, particularly Roman."

If reference is made to a series of so-called Hartkorn assessments beginning in 1664 in Denmark, it may serve to suggest that prototypes for

rating agricultural land on the basis of productivity may have had a Northwest European concentration during the past two or three centuries, apart from prototypes afforded in Southern Europe before the fall of the Roman Empire. It seems to the present commentator that Chinese and possibly some other Asiatic experience may have supplied the ancient Romans with prototypes.

Again quoting Antonelli:

"The purpose of *ordinary* appraisal is the search for the value of economic goods; the purpose of *cadastral* appraisal is the search for taxable return. But because even taxable return of productive goods can truly be considered as a special form of value, we will say that *appraisal concerns itself essentially with the search for values.*"

We are justified, therefore, in noting age-old distinctions of purposes in appraisal, as characteristic of Germany, Italy, Denmark or any other country as of any state or farming-type area in the United States.

It is interesting to note that in cadastral appraisal, where the necessity for wide territorial consistency is apparent, and where time changes can be made periodically, the emphasis on market value is hardest to shake loose, if indeed the effort should be made to shake loose from it too far. Dr. Brandt has emphasized that determination of net returns to be capitalized or to be used directly as a basis for distributing tax burdens opens the way for local political pressures to get low ratings on record. This is as likely to occur in areas where land is held speculatively, that is at high prices in comparison with return, as in areas where land valuations are low in comparison with return. Where market prices are used for tax assessments, land held at high prices in relation to income takes a penalty for its overcapitalization and land that is undercapitalized gets off on easier terms. If returns were accurately determined and if rates of capitalization were varied soundly, not only with the hazard in farming, but also with the pressure of optimism or pessimism as to impending changes in net returns, in rates of interest on long-time investment, in opportunities to buy or sell farms or parts of farms, then penalties on more speculative holders and mercy on the non-speculative could be as well achieved by that method as by direct use of market valuations. To use net returns without allowance for the multiplying factor would give results that would be regressive in its pattern for distributing burdens, and, where local pressures add a further haphazard feature, the result would be only to make the confusion worse confounded. Only a nearly universal long-standing practice of cash renting, as in parts of the United Kingdom, could be expected to facilitate distribution of tax burdens computed directly and solely on the basis of net revenue.

In appraisals for purposes of credit, a sound forecast of annual net revenue, without recourse to any multiplier (such as 20) or an equivalent divider (such as .05) can serve many purposes. If the borrower offers to make commitment to pay as interest and installment annual sums equal to about 50 per cent or some other such percentage of the expected annual net returns to the owner, the decision as to whether to accept his offer and make him the loan he seeks could be made as intelligently by the loan department without using any rate of capitalization, as by making the further hazard of selecting a rate that may prove, for the farm in question, to be too high or too low.

The advantage gained by using a capitalization rate where a credit appraisal is made is precisely that of a magnifying glass. For such purpose a scale of computation 25, 20 or 15 times as large as is afforded by the net revenue figure itself is handy. An illusion may be created through the use of a selected magnifier that there is a determinable equity which would be a shield in event of the necessity of taking over the property in satisfaction of the debt. If at a loan-making date the rate is 4 per cent and at the time of appraisal the multiplier is 25, whereas a rate of capitalization of 6.6, or a multiplier of 15, applies to the class of farm in question at the time of actually undertaking to retransfer the property from the creditor's possession, no consolation can be drawn from having used the higher-powered glass at the time of appraisal. The real question, until the creditor takes deed from the unfortunate debtor, or his successor in ownership of the property, is how the income-producing capacity of the property was maintained and how the debtor used his capacity to pay debts in taking care of his mortgage-debt obligations. There is no assurance that introducing a multiplier will increase the accuracy of judgment, either as to the debt-paying capacity of the land or the installment-delivering faithfulness of the man.

As has been pointed out, both at home and abroad, the conveniences offered by a farm cause the rate of capitalization to diminish. Whether alternative uses for the land, as in suburban residential development, should be said to cause low rate of capitalization of earnings from farm use of the same land pending diversion to the more valuable uses is a fair question. Certainly taxation should not be based merely upon valuation derived from current net revenues in determining tax-paying capacity of owners of such land.

To nullify appraisals that are based too exclusively on the capitalization principle there needs only to be marked variation in rates of interest as dominantly applied in respect to investments.

This does not mean that for appraisals for land purchase it is practicable or desirable to avoid trying to reach capitalized values based on earnings. It does mean, however, that current market prices have to be taken into account along with earnings and recognized return rates. A valuation is a forecast, the object of which is sometimes *accuracy* with respect to a current or a fixed future date, and sometimes *safety* for a person of present actual or future potential interest. For long-time credits safety for lender is usually more important than accuracy for borrower. Safety for buyer may likewise be different from accuracy for seller. The purpose for which and the person for whom the appraisal is made have outstanding importance both in theory and practice.

An opportunity to see through the eyes of Dr. Brandt into the wealth of experience had in these matters in Germany is helpful. If we might have had such opportunities three or four decades ago, we might have avoided some of the difficulties we have experienced.

AN APPRAISAL OF RESETTLEMENT[1]

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In trying to make an appraisal of the activities of an organization such as the Resettlement Administration, there are two types of persons unfit for the job (1) the person who is associated with the organization, and (2) the person who is not! The first may not see any defects or is unable to get a proper perspective, or if he does, he is not free to express his opinion; the second, because of the youth of the organization he can get so little documentary evidence nor can he always interpret data even if he can get them. Furthermore, he often has little opportunity to observe the work being done at first hand, or perhaps in only one section of the country. In the case of the Resettlement Administration the task is made more difficult because it has been reorganized several times and rumors are that it is now on the point of another drastic remodeling and shifting of functions. Not enough time has elapsed to permit a mature judging of the results.

It is with these limitations in mind that this paper is offered and with the willingness to stand corrected on matters of fact and interpretation. However, it will be limited to just one phase of the work of the Resettlement Administration, namely, the resettlement or relocation of settlers now on submarginal land or now living in situations where they cause high costs for public services. In fact it is really an appraisal of the resettlement activities of the federal government including some phases which preceded the work of the Resettlement Administration per se.

The demand for resettlement is not new. Economists favored the public participation in the redistribution of population for many years, especially because many of the isolated settlers were in this situation and were not responsible for it. Settlement in later years was not a *laissez faire* movement. Much of it was publicly stimulated and fostered. Settlers can with much fairness point to the federal policies of disposing of the public domain, the tax supported immigration and reclamation policies both state and federal, as factors in bringing them onto submarginal land and leaving them stranded. There is ample justification for a public policy of helping to relocate the victims of our former land policies.

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 30, 1936.

At the National Conference on Land Utilization held in Chicago November, 1931, a number of papers dealt with the problem, particularly that of Dr. Gray. He advocated an extension policy of informing settlers of the futility of remaining on submarginal land and of helping them find employment elsewhere. "In some cases," he said, "evacuation of sparsely settled areas may have to be effected by public acquisition of some or all of the occupied holdings through exchange or purchase, with a view of economizing public expenditures."[2] Mention should also be made of the fact that during Hoover's administration a proposal was made to set up demonstration settlement projects in the South to be sponsored by the Reclamation Service. The bill providing for these projects passed in the Senate but was lost in the House.

In the Franklin Roosevelt Administration the Subsistence Homesteads movement opened the door for a few demonstration projects dealing with the resettlement of stranded rural people. As stated in Circular I of the Division of Subsistence Homesteads of the Department of the Interior (November 15, 1933) these projects were set up for the "reorganization of disorganized rural communities" and the "movement of population from submarginal dry farming lands in the West."

One of these projects was the Forest Farm Homesteads project proposed for Wisconsin. A local corporation was set up in December of 1933 and functioned for a few months in 1934 when it was liquidated by the mandate of the Secretary of the Interior. The local corporation stated its program as "the relocation of isolated settlers to more favorable locations in northern Wisconsin." These locations were to be accessible to federal forests where settlers were practically guaranteed 100 to 150 days of work in these forests. It was hoped that state, county and even private forests might later adopt this plan. However, it was made known at once that these homesteads would be offered only to families residing in isolated locations within federal forest purchase areas, or within the restricted districts of the zoned counties, and only settlers capable of working in the forests would be accepted.

The purpose of going into details concerning this still-born project is to point out (1) that it was not a land purchase program but specifically a program aimed at the "relocation of isolated settlers to land of good agricultural quality in already established agricultural communities as far as possible"; (2)

[2] L. C. Gray, "Some Ways of Dealing with the Problems of Submarginal Land," *Proceedings* of the National Conference on Land Utilization, Chicago, November 19-21, 1931, p. 62.

that it was to be carried out by a local corporation manned by a local board of directors (with two from Washington, however) employing local labor and planning to use local materials for the modest houses; (3) that the program was definitely synchronized with the zoning movement and local land policies. The fact that it was restricted to zoned counties no doubt speeded up the desire of other counties to zone. Only two or three counties had zoned their lands when the policies were announced. It was realized from the start that it was not a complete relocation program since the selection of forest farm workers was restricted as stated above, but it was hoped that other programs would be initiated to take care of non-eligible, non-conforming users. (4) Since the homesteaders were assured a definite income plus "subsistence" in the form of fuel, shelter and a large part of their food, this became the basis for determining the maximum charge the settler could carry and amortize his holding in 20 years. Although tempted to make the places models with all the modern gadgets, the corporation decided to cut the cloth to suit the paying power of the wearer.

While plans were being formulated, investigators were sent into 23 northern counties who got in touch with almost 3,000 isolated settlers. The schedules so obtained were to be used in the selection of the homesteaders, but they also gave us a volume of information as to the social and economic conditions surrounding these settlers. The publicity given to the project and the visit of the enumerators roused the entire north. There was no difficulty in finding families willing to move to one of these homesteads. The requests to be relocated and the stories back of these requests were pitiful. Yet it pleased an all-wise Secretary of the Interior to liquidate the corporation before it could begin the real work, centralize authority in Washington and dash the hopes of hundreds of families.

It should be said, however, that the idea of the forest farm homesteads has been incorporated in a federal project in Bayfield county, where 40 homesteads are now being built under the direction of the Federal Forest Service in cooperation with the Resettlement Administration.

A similar drama was enacted in North Carolina. Here 4,500 acres were bought by a local corporation, hundreds of acres cleared, roads put in, some houses built, 700 applications received, 71 settlers recommended for acceptance, and 54 had accepted; in fact some were camping outside of the project ready to move on when this corporation was also liquidated in June of

1934. All this work was accomplished between December 20, 1933 and June 1, 1934. After that the project was dormant; finally the Resettlement Administration took it over. Information from North Carolina indicates that if the project had remained in the hands of the original corporation 300 families would have been resettled in 12 months after the project was started. It is now almost three years since the project was started and last fall only a dozen or so families had actually been placed. However, it is expected that more rapid progress will be made from now on.

These two examples indicate that people can be resettled with considerable speed with proper organization and programs. Furthermore, the liquidated projects left behind them a legacy of disappointed hopes under which later resettlement organizations had to operate.

However, later land programs shifted the emphasis to the purchase of submarginal land. This was hailed as a possible substitute for the crop reduction program, but several papers at the meeting of the Farm Economic Association in 1933 pointed out that to affect even 10 per cent of the production of farm crops, almost one-half of the farmers would have to leave the land. Yet the same idea crops out in a statement of the Administrator of Resettlement in 1936: "So long as millions of acres of submarginal land continue to be cultivated, producing crops under what are worse than sweat-shop conditions of life and labor, the farmers of America's rich acres will continue to be bothered with a problem of surplus."[3]

In the second place the purchase program was advocated as an antidote to bringing more land into use by reclamation at a time when other government agencies were paying farmers to keep land out of production. The paradox of spending public money to bring new acres under the plow and then spend some more of the taxpayers' money to offset the additional surplus when *no* spending would accomplish the same result, was also pointed out three years ago. Nevertheless, the statement reappears in Resettlement Administration Publication Number 1 in 1935,—that it is the President's established plan to take 10 acres of marginal land out of present production for every acre that is brought into cultivation by reclamation and irrigation projects. It goes on to say that the President had approved projects which would add 100,000 acres of new land and therefore the retirement of a million acres was called for. Stuart Chase also makes this statement except that he attributes it to Secretary

[3] Rexford G. Tugwell, "Changing Acres," *Current History*, September 1936, p. 58.

Ickes and speaks of it as a new policy for coordinated land use.[4]

Perhaps it was never intended to take these announcements seriously, but if they are to be taken at face value the policy needs clarification. (1) Is the purchase of land to offset new acres in addition to the other program or identical with it? (2) If it is to keep production in balance the purchase of cut-over or other idle land not now under the plow will not accomplish the purpose. (3) It seems as if 100,000 acres is an understatement of the acreage to be matched. The National Resources Committee Report on Regional Planning of the Pacific Northwest places the area of irrigable land under the Grand Coulee project of 1,200,000 acres. Granting that this will be accomplished over a period of many years, still the policy calls for the retirement of marginal land on the 10 to 1 basis of an area approximately equal to all the harvested crops of the three Pacific states.

At the meeting of the Farm Economic Association a year ago it was charged that the program of the Resettlement Administration instead of concerning itself with the "resettlement of destitute or low income families" was aimed primarily at correcting the misuse of land. "Millions of acres were optioned on which no one ever tried to farm, or ever would attempt to farm." Since the land so purchased was turned over to other government agencies these departments have used the Resettlement Administration as a means of getting land for their purposes.[5] There seems to have been no major changes in this policy. In fact the Administrator himself said in March 1936, "Land utilization is usually mentioned as the first of the activities because of its long time importance.... Plans have been made to purchase more than 9 million acres of land that is not adapted to its present use.... This land will be converted into forest areas, grazing land, game preserves, parks, and other beneficial land uses." Later he adds that rural resettlement has for its purposes the transferring of farm families "to other locations where it will be possible to succeed in agricultural operations."[6]

One gains the same impression from the press releases of the Resettlement Administration. Correspondence from New York State Conservation officials stressed the fact that they had turned over to them some 60,000 acres for state reforestation and game management, purchased by the Administration, but nothing was said about relocation of farmers. Even granting that this may

[4] *Rich Land, Poor Land*, p. 305.
[5] Noble Clark, "Discussion" of L. C. Gray's paper, JOURNAL OF FARM ECONOMICS, May 1936, p. 276.
[6] *Extension Service Review*, March 1936. p. 36.

have been an oversight, the omission seems significant. In Connecticut some 10,000 acres are being purchased and only about 10 people are being relocated.

In the second place even the purchase program has not proceeded with expediency because the title approving machinery had to operate with the same technique as if the government were buying post office sites. As much as 2 years has elapsed before "some of the checks came through." However, this has been remedied and now the work can be "speeded up." A late bulletin entitled "What the Resettlement Administration has Done" states that 9,100,000 acres of substandard land have been purchased to remove it from crop farming.

Allowance must also be made for the fact that land retirement and relocation of people are long time projects and should be carried out with deliberation and upon facts based on research. Many observers feel that the latter is highly important. However, the Resettlement Administration operates on executive orders and is not supported by specific legislation from Congress, as Dr. Gray pointed out to us last year.[7] The whole administration is working under the limitations of an emergency relief program, a sort of day-to-day existence. There was constant change in personnel and with the change came changes in policies. I personally want to bear testimony to the courage and the hard work of the people in the Administration in Washington, the regional offices and the field. It is not the purpose of this paper to blame individuals or departments although the question might be raised if these facts were realized a year ago why the Administrator did so little to correct them. In fact in his article in *Fortune* he defends the type of organization under which he was operating. "An old agency," he says, "cannot be counted on to do something new. But a new agency, staffed partly with personnel drawn from civil service can accomplish wonders."[8] I shall let Paul W. Ward of the *Nation* characterize his accomplishments as the head of Resettlement, "As a man of action he proved to be a fumbler, and for more than a year the RA was a scene of administrative turmoil that defied the descriptive powers of pen, brush or camera."[9]

The tragedy is not only that people who expected to be helped were disappointed, but also that the Federal Government "lost face" because of these disappointments. Promises were made to

[7] L. C. Gray, "The Social and Economic Implications of the National Land Program," JOURNAL OF FARM ECONOMICS, May 1936, p. 264-265.
[8] R. G. Tugwell, "Grass Did Not Grow," *Fortune*, October 1936, p. 116.
[9] *The Nation*, November 28, 1936, p. 623.

families, to officials of town and county governments, and private plans and public policies were based upon these promises. When these promises were not fulfilled it made little difference to them that the failure was due to the reorganization of the Administration, the "replanning" by the experts in Washington, or the petty bickerings of officials sparring for personal prestige. All they know is that they were promised bread and were handed a stone.

However, the resettlement of families is still a part of the land use program. In fact it is often pointed out as the driving force behind the purchases of land even though the latter is placed first. "Lacking a rural zoning program in all states but one it was found necessary for administrative reasons to block up areas, where farms are scattered, and purchase the intervening tracts," said Dr. Gray last year.[10] Definitely delimited areas were set up, 208 in number, within which all the land is purchased whether it has settlers on it or not. Settlers who are bought out are dealt with in several ways. (1) They may take their money and move to the city or elsewhere. This plan was criticized last year because there is no assurance that when the settler has spent his money he will not come back for relief. It is as effective as any other device for getting the settler out of the purchase area but does not solve the human problem. (2) He selects another farm in a good farming area perhaps with the guidance of the Resettlement Administration. (3) He is definitely helped to relocate in a better farming area. This is called the "infiltration method." (4) The transplanting of a group of farmers into a planned community. This fourth form received much attention in the two earlier publications of the Resettlement Administration. Much was made of the cooperative features and the supplementary manufacturing and processing plants. In the second publication it was proposed to give the homesteader only a house and plot for growing things for home use. The rest of the land is to be owned by the community corporation. Recently less has been published on these model colonies and the cooperative feature is not so much in the foreground.[11]

Nevertheless, the more recent publication quoted above states that "86 projects are being set up where about 10,000 farm families will have new economic, social, and educational opportunities."[12] It is not clear whether these are planned communities or infiltration settlements. It is also reported that more

[10] *Journal, op. cit.*, p. 261.
[11] "Resettlement Administration," Publication No. 1, 1935, and the same title—1936.
[12] "What the Resettlement Administration Has Done." November 1936.

than 4,000 rural homes are now under construction and that 2,143 farm families are already occupying homes built by the Resettlement Administration.

Earlier in the pamphlet one reads of 19 rural resettlement projects as completed and 2,695 rural homes built and construction going on in 44 additional rural community projects. These figures are also ambiguous; they do not seem to include those relocated on already established farms on which no new buildings had to be constructed.

A demonstration tenant project is also under way for the resettlement of 1,000 selected tenant families in 10 southern states. The purpose is to offer tenants a chance to own a farm. It is not clear from this statement how much is accomplishment and how much is still promise. All of which emphasizes what was said before that there are very few data on which to appraise the work of the Resettlement Administration, and what little there is is vague and subject to several interpretations.

A statement in a publication of the Administration that "these farmers are poor, not because they have suddenly become shiftless and lazy but because their farms simply cannot be farmed at a profit,"[13] indicates that the magnitude and nature of the task of relocating *all* settlers within a given tract was not appreciated. When it comes to resettling an entire community it will be found that there is not only submarginal land but there are also submarginal people. An analysis of the date on 140 nonconforming land users living in the restricted districts of one northern Wisconsin county indicated that only 30 were in a physical condition, had the ability to farm and had the finances to be trusted on a commercial farm with 20-30 years time to amortize their obligations. A similar number had the age, experience and physique to be considered eligible for a forest farm homestead project. The same situation was encountered in Minnesota in the Lake of the Woods resettlement project. Quoting from a report on this project:

"Some of the settlers were good farmers, some industrious but untrained as farmers, others shiftless or lazy, some even lawbreakers. Some owned their land and had their taxes paid, some held title to their farms but had reduced their equities by borrowing and some were so far back in taxes that they had no equity. Some were homesteaders who had not improved their claims, some were renters, while others were mere squatters who had moved onto the land of absentee owners without any right, or onto

[13] "Resettlement Administration," 1936, p. 11.

government land with uncertain rights or none. Some lived by stealing timber from the land of nonresidents or of the state.

"About a fifth of the settlers are able to care for themselves without assistance from the Resettlement Administration, taking their equity in cash and making their own arrangements for resettling near the Forest Area, or moving away from the county. About a third of them are unfit to farm, being aged, widowed, or in ill health. This leaves about half who can farm and desire to do so, but who need assistance in securing land and equipment, and often subsistence while beginning development of their new farms. Most of those unfit to farm were already permanent relief cases. So with them the problem is to arrange for their resettlement in the same county as no other county is willing to accept them as new settlers. Some of these have a small equity from the land they held in the Forest Area, and this equity is conserved and used for their support, while their care must be made as light a burden as possible on the county. For this reason they are located either in or near the villages, the cost of their land and buildings being kept low and the title to the land retained by the county."[14]

These illustrations indicate that it is comparatively easy to set up a colonization area and from a long list of possible clients select the cream. It is another job to plan for the future of the lame, the halt and the blind that may live in a given area, whether it is a resettlement project area or the restricted districts of a zoned county.

Herein lies the danger of any "demonstration project." It can only demonstrate the possibilities of resettlement of settlers of a specific grade and under a given set of conditions. Furthermore, there is always the temptation to select the right people to make the demonstration a success and omit those who might not "fit in." If the demonstration tenant projects are for *selected* tenants they may not throw much light on the problem of solving the share cropper situation.

The orders from Washington also call for the equipping of the houses with all modern conveniences surpassing those to be found in thousands of farm homes in our better farming areas, and yet expect the settlers to pay for them. This would be a task for good farmers on good land, to say nothing of fair farmers on second grade land as is often the case of projects located on the edges of the submarginal areas. As stated above, this was not the

[14] R. M. Pinckney, "Resettlement in Northern Minnesota," Mimeographed.

plan of the Forest Farm Homesteads Corporation, nor is it the plan of the project being carried out on the Lake of the Woods project. Mr. Pinckney states: "In all cases it is planned to give the client the best possible chance to meet his amortized payments as they become due so as finally to own his farm free of debt. It is held that this is sufficient reason for eliminating some of the refinements in equipment and surrondings that will be desirable when they can be provided out of income, but which other settlers already in these communities cannot afford for themselves. It should be recognized that to provide these resettlement clients with facilities that their older neighbors do not have may prove a handicap to them both because of the cost they must repay and because the settlers already there may look upon them as an unduly favored class rather than as self respecting workers."[15]

It should be said of this project that it was set up under a State Rehabilitation Corporation under the old FERA and functions under the original set-up, although the management has been transfered to the Resettlement Administration. Its success is therefore due not so much because of the RA but in spite of the RA.

Dr. Gray stated last year that public acquisition alone cannot correct and prevent maladjustments; besides to purchase all misused land would be an impossible task for federal and state governments. The National Resources Board recommends the retirement of 75 million acres from arable farming or 8 times the area of the 208 projects, and 25 times as many families would have to be relocated as are being bought out under present plans. He suggests zoning as specially adapted to undeveloped areas with scattered settlement, high governmental costs and where nonconforming users can be assisted in relocating through public acquisition programs. The reason for setting up purchase areas, he says, is because all the states but one lacked a rural zoning program.[16] However, the same rigid program of purchase areas was set up in Wisconsin as in the other states even though it offered an excellent opportunity to coordinate the resettlement program with zoning by relocating the nonconforming land users.

In Wisconsin there are now practically five million acres of land closed to agriculture in 23 zoned counties. The official lists of nonconforming users of 22 counties for which such lists are available indicate that there are 1,898 families now living in the

[15] R. M. Pinckney, *op. cit.*
[16] Gray, *op. cit.*

restricted districts, i.e., the forestry and recreation zones. Many of them are isolated and are the cause of excessive public expenditures. Zoning does not cure this situation; it merely prevents future costs. To relieve the counties of these burdens and to salvage the settlers themselves, relocation is necessary. It should be emphasized that relocation of nonconforming users is even more urgent than the resettlement of ordinary isolated settlers. The latter can always live in the hope that others might move in and help form a community. The nonconforming user has no such hope. The ordinance forbids further settlement. Zoning "freezes" the population pattern and the stranded settler tends to become more and more isolated. In one case a town refused to build a road for two settlers, saying the area was zoned and they could not afford to spend $500 for two families. In this case the town helped to relocate them in an unrestricted district.[17]

Some planners also feel strongly that for the safety of zoning itself *all* nonconforming uses should be abated. There is always a threat of violation of the ordinance if nonconforming users are permitted to stay.

It is necessary to buy less than 2,000 farms and about 200,000 acres of land to remove agriculture from 5,000,000 acres of northern Wisconsin land, more than half of the area purchased under Resettlement. However, it is not necessary that all of the 2,000 nonconforming users should be relocated. Some live near the edge of the districts and do not cause any more expense than their neighbors across the line in the unrestricted district. Other farmers live near resort owners and constitute a fair sized community. To remove the farmers would merely increase the isolation for the rest. Probably not more than 800 cases are critical from the standpoint of their own welfare, the cost of public services, and the safety of the zoning movement. Many of these nonconforming users expected to be resettled ever since the Forest Farm Homesteads were proposed. Now they are threatening to have the boundaries of the zones changed unless they are bought out. One such case is becoming critical and we have hopes that the purchase can be made through the Forest Service. Other counties have relocated settlers with their own meager resources.

Resettlement officials are aware of the need of coordination of zoning and resettlement. In fact the Administrator himself commented on the Wisconsin zoning and Texas Wind Erosion acts

[17] George S. Wehrwein and J. A. Baker, "Relocation of Non-Conforming Land Users of Zoned Counties in Wisconsin," *Journal of Land and Public Utility Economics*, August 1936.

as "essentially neighborhood laws for mutual protection. The Federal Government with its Soil Conservation Service and Resettlement Administration merely follow along and attempt to help."[18] In a later publication he speaks of a more intelligent method of handling tax delinquent land, rural zoning, the guidance of private settlement and supervision of credit as technique which in time should replace federal purchase as the most effective and economical way of correcting abuses.[19]

In spite of this there has been no attempt to adjust the Resettlement program so that the nonconforming users might be relocated, except where they also live in a regular area. I can understand the reluctance to buy land in restricted districts whose existence depends upon the action of a county board elected by popular vote for one year and highly responsive to local pressure. The ordinance can be rescinded or amended and the districts changed without much trouble. There is no guarantee, at least in some counties, that the ordinance will be enforced, neither has the constitutionality of rural zoning been established in the courts. It is still an experiment, but so is the Resettlement Administration. It does not have to buy out any one unless it is satisfied that it is a deserving case and it can set up restrictions and conditions under which it will function in any county. If this were done it would strengthen instead of weaken the faith in zoning and stiffen the backbone of those who are charged with its administration.

Instead of buying all in a given area, whether or not they are high cost settlers or on the worst land, if these 800 worthy cases could be relocated the problem would be attacked from the human instead of the land angle. Suppose the Federal Government had a few scattered tracts on its hands which could not be made a part of a federal forest or a game preserve. What of it? The United States now holds remnants of the public domain in the Lake States and it doesn't seem to worry anybody. By zoning first the door is closed to future settlement. There is no need to buy all the land in the restricted districts. Through the Forest Crop Law, trading of land and relocation of settlers, the land can be directed into the uses permitted within the district. Relocation must be carried out in cooperation with the local bodies involved in zoning and planning.

Undoubtedly a new realignment of the functions of the Resettlement Administration is in the offing. This should offer the op-

[18] Rexford G. Tugwell, "Down to Earth" *Current History*, July 1936, p. 34.
[19] Rexford G. Tugwell, *Current History*, September 1936, op. cit., p. 63.

portunity to set it up under congressional action and under the Department of Agriculture with whom it has been cooperating. It must be put on a long time basis divorced from all other purposes except the resettlement of people on submarginal land or those settlers which are causing excessive public costs, as the first objective and the retirement of the land from agriculture as the second. Wherever a state zoning program is in operation the resettlement and land purchase program should be synchronized with it to the extent that stability of the program is guaranteed to the Resettlement Administration. Decentralization of authority and of responsibility must definitely be a part of the reorganization of the Administration, not because this is a question of states' rights but because the nature of the job demands it. There is still too much direction from Washington and too little adjusting of the program to local needs, institutions and conditions. In some cases there is also too little cooperation with state agencies in research and in carrying out the programs. It is impossible to build rural communities, lay out farms or even build houses by long distance control. Whenever such jobs are done by the people with their feet on the ground, literally and figuratively speaking, the job will be done by simply going ahead and doing it.

Discussion by C. H. Hammar

University of Missouri

Like Professor Wehrwein, my contact with the Resettlement Administration is that of an outsider. I may therefore be able to contribute to the discussion only disappointingly. I want to state at the outset that my feeling toward the work of resettlement is sympathetic and any critical remarks that I will make should be interpreted in that light. The great objective of the Resettlement Administration is to shift the attitude toward rural land settlement from an essentially exuberant and uncritical to a critical stage. While there is abundant need for effort in this respect, I believe there is further need to look at the methods, techniques, and implementation of this program particularly now that it seems to be moving in as a permanent part of our govermental set-up.

One of the questions that has posed itself to me from the beginning and that I have never found adequately answered is: Just where among the many federal agencies does the Resettlement Administration fit in? It seems to me that some of the problems raised in Dr. Wehrwein's paper arise from a failure to distinguish clearly the answer to this question.

The niche that resettlement must occupy appears to me to be a narrow one. In its rehabilitation aspects it must fit in above the relief program but below that of the Farm Credit Administration. There appears to be some room for constructive work here, but it is a legitimate question to ask whether the whole field might not be less confusingly covered by extending relief upward a little and farm credit downward a little and thus

eliminating an agency or institution that is bound to overlap with each. In other words can the large overhead incident to the establishment of a new organization be justified by operation in so narrow a range of opportunity?

In the case of relocation of settlers there seems to be a quite equally narrow field for operation. The clients divide themselves into those that are capable and incapable, those that are older or younger, and those that are willing and unwilling. In the case of the capable and incapable it would appear to be an error for Resettlement to concern itself too much with the capable since these will, if given time, adjust of their own accord once the economic emergency is past. On the other hand, the incapable and more nearly relief clients are people who should be transferred into industry as workers rather than retained as owners and operators of farm lands. There remains a narrow range only of persons sufficiently capable of becoming owners but not quite capable enough of relocating and readjusting themselves without governmental help.

With respect to the young and the old, there appears to be a similar problem. Those much over fifty are in most cases beyond the period of life when they can successfully tackle or master new environments. The job, for instance, of taming cut-over land either in Wisconsin, Minnesota, or Arkansas requires the resiliency of youth or early maturity. On the other hand, the young are not only not ready for the responsibilities of ownership but are dubious resettlement material for a quite different reason. The most normal type of resettlement in this country has always been a migration of farm young people to cities. There were millions of these migrants during the periods of the 20's. Since that time the birth rate in cities has fallen still lower and I see no reason to suppose that the tide of these migrants will not run high also in the oncoming period of urban prosperity. They are therefore likely to prove most unsatisfactory material for resettling and most likely to insist upon doing their own readjusting in their own normal manner.

With respect to the willing and unwilling, there is a further difficulty. By no means all of those occupying the narrow range between the able and the unable and the young and the old will be willing material for resettlement. Indeed, the people that appear now to be most needing resettlement include the most adventuresome and individualistic people in the population. They are in their present circumstances on the fringe of settlement because they chose to be there and because thy found themselves either unwilling or unable to fit into the many urban occupations or rural occupations in the areas of better lands that were available to them in the 1920's. Therefore some of the "willingness" of people that Wehrwein finds so abundant in northern Wisconsin may be a temporary phenomenon born largely of the stress of depression. The Dyess Colony in Arkansas established under what appear to be, to the superficial observer, almost ideal conditions and ably administered, can by no means hold all its clients or resettlers. Not all resettlement projects can be as neatly located as the Dyess and will, I suspect, have a higher turn-over rate than this one has had.

With respect to land use, there appears to be some equally grave difficulties in finding a place for Resettlement to fit in. Let me pose, for instance, one type of problem encountered in Missouri. In Missouri the

Ozarks are more grossly oversettled upon the basis of certain criteria than are the better lands of northern Missouri. Would it be wise to adopt the policy of attempting to move the Ozarkers in considerable numbers up into northern Missouri? When answering this question, one should first recognize that northern Missouri is occupied by commercial farmers producing a considerable surplus for market while Ozark farms are organized quite universally upon a self-sufficing basis. One might, I believe, genuinely improve the living standards of some Ozark farmers by making room for them in the north. There is just as good reason to suppose, however, that such relocation would reduce the standards of living of the people in northern Missouri. Indeed we have the peculiar circumstance that, while the Ozarks are grossly oversettled in relation to northern Missouri, farms in northern Missouri too appear to be too small to be operated most efficiently under modern methods of agricultural technique.

We have at present a project in western Missouri upon good land that is being questioned because of its intention to relocate people upon 85-acre farms. The average size of farms in the same county in which the resettlement project is located is 145 acres. The average size of the farms surrounding the immediate area of the project is almost certainly larger than this 145 acres, since a large number of the really small farms in the county are located near a moderate-sized city that it contains.

The question more specificially is, therefore, whether the Resettlement Administration can successfully oppose its judgment to the judgments rendered by the farmers acting individually to the more normal economic stimuli of the past? In other words can the Resettlement Administration hope to successfully operate 85-acre farms in an area where farms are already approximately twice that size and in a region, furthermore, where the trend with respect to size has for the most part during recent years been upward rather than downward?

There is also the further somewhat amusing question, and one obnoxious to Iowa, of whether, if this desire for levelling off is a sincere one, the translocation of Ozarkers should not be clear across northern Missouri, and even across parts of southern Iowa, up into the large farms of the rich central sections of that state, where the farm incomes are much greater than in northern Missouri and where the levelling off process could be made the averaging of much greater extremes.

Even in the case of the land utilization division where, it appears to me, the most satisfactory long-time program of the Resettlement Administration is being developed, there appears to be no little danger of duplicating the work of preexisting agencies. I cannot help being aboundingly grateful for the reorientation of thought with respect to land classification that the land utilization section has done so much to inaugurate. I am grateful also for its work and emphasis upon the many problems of local government that are so intimately associated with land use. Yet I know that in many states land utilization sections can do no more than duplicate or amplify and hasten the work already under way in the agricultural experiment stations. They stand, furthermore, in grave danger of pushing the program at a pace that local people and state legislatures cannot maintain. It will take tact to avoid friction.

In conclusion, then, without attempting to discuss them in much detail, let me outline what appear to me to be the major dangers in the

resettlement program. First, there has been something of a mild hysteria characteristic of some of the program and there is grave danger that conclusions with respect to resettlement needs drawn during the period of bad economic weather and equally untoward climatic extremes will be the basis of a future program to carry on under much more normal conditions.

Second, despite the imposing lists of accomplishments of the Resettlement Administration periodically coming to my desk there appear to the observer at a distance to have been too much top growth and too little root growth in the Resettlement Administration itself. I have tried to indicate why it has been difficult for resettlement to strike deep roots. That has not prevented it from securing an elaborate regional organization which has grown in a year or two to proportions that approach that which the Forest Service was able to obtain only in many decades.

Third, our experience with the technique of resettlement and our knowledge of just where resettlement fits in appears to me to be shallow. There seems therefore to be grave danger that we will attempt, because of humanitarian motives, too much rather than too little. We appear to be in a stage of development similar to that of the Forest Service when the reforestation program passed out from its earlier stages into one of administering national forests. The number of experienced foresters in the country was almost nil and we were forced to go abroad, both for foresters and forest education and for precedents in silviculture and forest management. Furthermore, the precendents to be obtained from Europe with respect to resettlement appear to me to be much more remote in application here than they were in the case of forestry.

Fourth, I think there is danger in yielding to the tempting assumption that a clientele and public loyal during hard times will be equally loyal when and if prosperity in a large measure returns as appears imminent.

Fifth, there seems to be a real danger of being unable to distinguish and separate those things that should be accomplished for humanitarian purposes, and in a temporary emergency from the things that should be attempted as parts of permanent policy. I have been unable at all times to discern from the reports of the Resettlement Administration just what it considers temporary and just what it wishes to include in its long period program.

Finally, there is grave possibility that ambitious resettlers will make and push plans for states and regions that have proved too unwilling and indifferent to care for these programs themselves. I find myself quite out of sympathy with the thought developed in Wehrwein's paper that the Federal Government should be responsible for moving nonconforming settlers out of districts that the zoning program has designated to restricted uses. I am inclined rather to the judgment that the major responsibility in this respect belongs to Wisconsin and not to Washington and that the zoning program should stand on its own feet and not be made the basis for placing pressure upon the Federal Government to insure its success.

EXPERIENCE OF RESETTLEMENT ADMINISTRATION PROGRAM IN LAKE STATES[1]

R. I. NOWELL
REGIONAL DIRECTOR, RESETTLEMENT ADMINISTRATION

The program of the Resettlement Administration has now been under way for about eighteen months. Since many phases of the work are of an experimental character, this would appear to be an appropriate time to make a critical analysis of the objectives, methods and accomplishments.

In discussing the Resettlement Administration, I propose to speak only of Region II, comprising the states of Minnesota, Wisconsin and Michigan. Observations on the program in this region may not apply to other parts of the country. Natural conditions elsewhere are significantly different and are the very basis of the regionalization of our administrative organization. There also enters the personal element of the Regional Director. Despite rigid control from Washington, each director has been given considerable latitude for the expression of personal philosophy. Consequently, the emphasis placed on different parts of the program and the complexion of the whole will differ from region to region.

A Good Region for Developing the Resettlement Administration Program

The three lake states have proven an unusually good laboratory for experimentation. The region embraces a distinct natural area. Having had a common geological origin, the three states have developed natural and social problems which are uniform and sharply defined.

Our work has been made easier than in other parts of the nation by virtue of the enlightenment of state and local officials. Research work on problems of land use planning had been far advanced by the agricultural colleges of all three states before the Resettlement Administration was established. In Minnesota and Wisconsin, committees appointed by the governors, had grappled with problems of land use and had issued recommendations for well conceived programs of action. In Michigan the Land Economic Inventory made available much valuable information regarding the land resources in that state.

In each of the three states we have comparatively strong state

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 30, 1936.

departments of conservation which have made good progress within their limited resources. The pioneer work in rural zoning of Wisconsin and Michigan is further evidence that local people are alive to their problems and are devising realistic solutions.

Problems Which Have Made Our Work Difficult

By executive order the Resettlement Administration inherited a vast army of personnel and hundreds of unfinished projects in June, 1935. Included in the agencies pooled together were the Rural Rehabilitation program of the Federal Emergency Relief Administration; the Land Policy Section of the Agricultural Adjustment Administration, the Subsistence Homesteads Division of the Department of the Interior; the Farm Debt Adjustment Program of the Farm Credit Administration; and the Land Use Planning Section of the National Resources Board. Over 17,000 employees were transferred to the Administration by list action. Most of them were former employees of the Rural Rehabilitation Divisions of the State Emergency Relief Administrations.

Our program has been made difficult by the absence of congressional authorization and direction. We have operated under a works program with funds appropriated for work relief. It has been necessary for us to clear all operations through the Comptroller General's Office on a trial and error basis. We have blazed our own trail, writing policies and regulations with executive orders the source of authority.

The great single handicap to our work has been a very indefinite and changeable budget situation. This condition is probably inherent in lump sum congressional appropriations. The flexibility afforded in shifting funds from one activity to another has had distinct advantages in the administration of the relief program, but it has presented almost impossible administrative problems to agencies whose work required planning many months in advance. Funds for all activities of the Administration have been provided on a hand to mouth basis. Because of emergencies arising from exhaustion of relief appropriations, droughts, etc., it has been necessary time and again to reduce, transfer and restore funds allotted to our various projects and activities.

Our Administration has been required to use antiquated procedure and machinery for land acquisition. Both the General Accounting Office and the Justice Department, which are outside of our administrative control, have been required to pass on titles. These departments have cooperated to the best of their ability,

but have been swamped with abnormal volumes of work from other emergency agencies for which they were not equipped with facilities or personnel to handle.

Rehabilitation In Place

This activity was originally started under the Federal Emergency Relief Administration. It was financed with money from the 1934 Relief Appropriation which was granted to states. Local corporations were organized in each state through which to finance and administer the program. The underlying purpose was to make credit available to farm families who had access to good land and were eligible for relief because of having depleted their credit and operating capital. The program was designed for emergency cases which were a product of the low farm prices of depression years and the drought of 1934. Many families were in danger of losing their homes through foreclosure. For this general class of farmers it was assumed better economy to make substantial loans for operating equipment and livestock so the families could retain their farms and again become self-supporting, rather than continue to dole out subsistence requirements on a monthly basis.

From its inception, the responsibility for practically the entire rural relief burden has rested with the rehabilitation program. Efforts have been made at all times to segregate the purely relief phase from the loaning phase. Within the organization we refer to standard cases as those supported by farm management plans and on which it is reasonable to expect repayment in full. The cases for which satisfactory farm plans cannot be prepared are known as emergency loan or subsistence grant cases.

With respect to the standard loan program of this region, we have made a very careful selection of families taking only the better grade of applicants. Funds and personnel thus far available have permitted us to reach not over 50 per cent of the eligible clients. We have made loans and grants to approximately 15 per cent of all farm families in these states. This has afforded a wide range of selection, and the applicants for whom self liquidating standard farm plans could not be prepared, have been given cash to cover their emergency subsistence requirements, or have been certified to Works Progress Administration for employment. Our freedom to select cases has made it possible to avoid most of the chronic reliefers and ne'er-do-wells. In Region II our county supervisors have had access to land classification

maps of various kinds, and we have usually avoided making loans in land areas poorly adapted to agriculture.

Use of the farm and home plan for analyzing loan applications has been generally required. We have placed strong emphasis on the preparation of good farm plans because we intended closely to supervise farm operations and require strict adherence to the proposed method of operation. These plans have called for diversified production and generous provision of products for family consumption. Unfortunately, pressure on our field personnel to service new loans and handle emergency grant programs has made it impossible for us to give the degree of supervision to borrowers that we think desirable. Our standard loans have been fortified with every possible security available. In Wisconsin we have made wide use of dairy income assignments.

Our rehabilitation program has operated during a very favorable period. We started when farm prices were near depression lows and rising values have made it easier for farmers to repay obligations. The drought of 1936 cut deeply into farm income of both Wisconsin and Minnesota, but despite this havoc, collections are coming in at a surprisingly good rate. On the basis of incomplete reports, Region II has the best collection record in the nation. Since July 1 of the current fiscal year, we have collected over a million dollars in the three states. Since a part of our collateral is in the form of demand notes, it is impossible to express collections as a percentage of amounts due. On the basis of our experience to date, however, we anticipate final collections to run from seventy to seventy-five per cent for the old corporation loans and from eighty-five to ninety per cent on the standard resettlement loans. The difference is to be attributed to much more rigid analysis of loan applications, better prepared farm plans, more supervision and more experienced personnel. This is an unusually high percentage of returns when it is remembered that our clients must first be rejected by all commercial and other governmental sources of credit in order to establish eligibility for our loans. We attribute part of our good collection record to the use of dairy assignments. Our practice of taking mortgages on all available personal property in addition to chattels purchased with loans has also strengthened our position.

We believe our collection record demonstrates that low income farm families are responsive to guidance. Our Extension Service in the past has been unable to reach this group. They have worked with the more aggressive farm leaders on a demonstration basis

and have too often failed to serve those families which were in greatest need of assistance.

We have also discovered that controlled or supervised credit is a powerful tool for effecting desirable changes in farm organization and management. Many of our clients had never appreciated the value of crop rotation or the advantages of using improved seeds, improved livestock feeding and breeding practices, or the use of farm account books. When the approval of a loan application is made contingent upon the adoption of these practices, we get rapid results. The use of farm plans with moderate supervision might be adopted by all farm loaning agencies. I suspect that a large number of farm foreclosures could be prevented if appropriate steps were taken at the proper time by giving the farmer and his family intelligent guidance on the operation of the farm. Too many of our farm operators lack initiative and business judgment. We have found that many of them welcome some supervision and guidance.

In this region we have witnessed a marked change in the attitude of country bankers towards farm loans. Clients have come to the Resettlement Administration for loans who had no credit standing in the community. After we prepared farm plans and made an analysis of the farm operating budget it has been frequently discovered that the clients were quite satisfactory credit risks. Many of our county supervisors have taken these cases back to local bankers and explained the possibilities of clients repaying the loans if ordinary judgment and industry are exercised in the operation of the farms. On the basis of the showing made, the bankers in many instances have accepted the applications and made the loans. Some local banks are considering the appointment of agricultural men to service their loans in precisely the same manner we are doing. We strongly recommend such action.

We do not claim to be able to effect the rehabilitation of many families who have a long history of being down-and-out, but we have been successful in the rehabilitation of large numbers of families who were victims of the abnormal conditions which have prevailed since 1930. There are thousands of families whose applications for loans have been rejected by the Resettlement Administration because it was impossible to work out farm and home plans that showed any prospect of the family becoming self supporting. In most cases our inability to work out satisfactory plans has been because the family had access to only very poor soil, had units too small for economic operation, or because of

physical handicaps of the head of the family. These types have made up many of our emergency grant clientele.

Some grants have been given to standard rehabilitation clients as a means of supplementing their income sufficiently to keep within the farm and home budget until the farm plan can become effective. The extensive crop failures in the drought areas of the region in 1936 have upset many of our farm plans. In these cases families were given Works Progress Administration employment during fall months, and since winter set in we have given small emergency grants to meet subsistence needs. We have also carefully revised repayment schedules in these areas, extending the repayment dates of the notes where necessary.

It is hard to operate an organization on a relief and banking basis simultaneously. For this reason we have often felt that it would be desirable to have relief activities handled by some other agency. As explained above, however, the type of people we are dealing with is operating so near the margin that they are immediately thrown on the relief side of the ledger with a slight disturbance of their farm plan; drought may ruin the hay crop, rust may get in the wheat, or sickness may occur in the family. For this reason it seems essential that the rehabilitation program continue in a position to make emergency grants, otherwise clients would be oscillating back and forth between two administrative agencies.

I am of the opinion that we are accomplishing more good per dollar of expenditure on rehabilitation loans than in any other part of our program. A given amount of money can be used to help a larger number of families in this way than by any other method.

The costs of administering the rehabilitation program are admittedly high. Comparisons of administrative costs, however, with other credit agencies are meaningless. It must be admitted frankly that we are administering a relief program and the other alternative would have been direct grants. Grants and work relief tend to perpetuate unsound conditions. Loans intelligently made and supervised frequently correct the basic problems which caused the families to become public charges.

The management of the State Rehabilitation Corporations was turned over to the Resettlement Administration in October, 1935. In this region the local directors have maintained an active interest and responsibility in Corporation affairs. This has given our rehabilitation program a greater degree of local direction than has been true of other activities.

Land Acquisition and Development

The submarginal land retirement program was originally considered in some quarters as a method of limiting or controlling agricultural surpluses. Fortunately this concept was soon discarded and the land program became one of demonstrating alternative uses of poor land, such as forest and game production, recreational use, military grounds and Indian reservations. In my opinion the land program in this region has negligible significance so far as its influence on total agricultural production is concerned. If our resettlement program is successful, the net effect probably will be a slight increase in total agricultural output.

The retirement of submarginal land is clearly needed in the lake states. Here we have some of the best examples in the nation of misguided settlement. When the timber barons stripped off the timber, slash fires were permitted to run wild and high pressure colonization schemes under sponsorship of public agencies became prevalent. Units of government were bonded for many millions of dollars to finance the dredging of vast drainage projects for the reclamation of worthless sand and peat land. Families were deliberately spotted by colonization companies in the most remote parts of their property. The isolation was then used as leverage on county and town officials to supply roads and schools, anticipating that such developments would make it easier to sell the remaining property. With the passing of years, much of this has proved to have been a mistake. The drainage projects are in default on both principal and interest. In Minnesota the state has been forced to rescue the counties in order to support their credit. Tax rates and assessments have been progressively increased until in many counties they are now practically confiscatory. Vast acreages have reverted to states and counties through tax delinquency, and the tax base has become so reduced that it is no longer possible to support the costs of public services in the sparsely settled areas.

The condition of families is equally deplorable. When driving on concrete highways one seldom encounters the pitiful rural slums which are to be found in the backwoods. Lands will not produce crops and families live in dire poverty, appropriating their living from the countryside and from relief agencies.

Poor land areas are frequently the operating base for unscrupulous real estate dealers. Unsuspecting victims are taken from cities and sold worthless land giving their city property or life savings as down payments, only later to find that it is physi-

cally impossible for them to support a flock of chickens, let alone a respectable family. After a year or so the families become disillusioned and return to the city. The so-called "salesman-sheriff-cycle" continues over and over again. Such areas must be taken from circulation. The licensing of real estate dealers would go a step towards meeting this issue.

In Wisconsin rural zoning ordinances have been adopted by twenty-two counties. By county ordinance the police power is used to stop abuses of land settlement and to give intelligent direction to persons seeking new homes. Unfortunately zoning cannot be made retroactive. It is designed only to prevent recurring mistakes of the kind above described. Until some provision is made for them, families who were established in bad areas prior to the enactment of zoning ordinances, must be permitted to continue as non-conforming users. A zoning ordinance impairs the marketability of land in restricted districts and the nonconforming users in effect become marooned. It might be considered a public responsibility to assist such families to new locations. In these several situations there is a crying need for the purchase of land and resettlement of the families.

We have projects of both scattered and contiguous purchase types in this region. Our scattered purchases have been made in areas where the intervening unoccupied land was under some kind of effective control. For instance, on the Beltrami and Pine Island projects of northern Minnesota, and the Au Sable project in northern Michigan, our purchases have been confined to occupied privately owned lands in state forests where a large part of the unoccupied land was already in state control. The lands acquired by the government will be turned over to the State Departments of Conservation on a lease basis for permanent administration. In the projects of northern Wisconsin we have bought lands which were located either in purchase areas of two federal forests or in areas zoned against future agricultural settlement by county ordinances. On projects of this type funds for land acquisition can be used to assist large numbers of families and will alleviate far more human distress than if the funds are used to acquire contiguous tracts.

Examples of contiguous purchases are the Central Wisconsin Game project and the Allegan project in southwestern Michigan. On each of these we have acquired both occupied and vacant land. Where complete ownership is obtained it becomes possible to demonstrate desirable changes in land use. The control is far more effective when placed under single ownership, and prob-

lems of future management become greatly simplified. It is too early for us to know how effective control by zoning will prove to be. To date, counties have been reluctant to assume responsibility for vigorous enforcement of the ordinances. Unless the problem of enforcement is faced squarely, contempt for the ordinances will grow and will eventually lead to undoing of the work. As yet there has not been any case which has reached the courts to test questions of constitutionality and other legal features. Caution is still required when predicating the success of a project upon control by zoning.

It has been definitely demonstrated that settlers in bad areas will sell at reasonable prices, if the boundaries of the purchase areas have been properly established. Some mistakes were originally made in locating projects, but when optioning started they were quickly discovered. In the areas where acquisition is needed the settlers are thoroughly convinced of the futility of agriculture. Of course there are a few who will hold out for higher prices, but they soon come around on a voluntary basis after neighbors begin to leave and stories reach them of desirable farms which can be obtained elsewhere at reasonable prices.

The principal opposition to the land acquisition program has come from small town merchants who have filled grocery orders and cashed checks for recipients of relief. Also, the township office holders usually are violently opposed to our land retirement projects. Some of the theoretical savings in road and school costs through resettlement are thwarted by the practical operation of state aid laws for the maintenance of roads and operation of schools. This has had an opposing influence on our acquisition program. There is need for a careful reconsideration of the effects of all state aid laws. Most of them operate to penalize those units of local government which make desirable adjustments for operating efficiency. Our state aid laws must be made to encourage with premiums efficiency in local government.

Titles of land have been found to be in very bad shape. In buying and selling farms on poor areas the formality of abstracts and recordings are usually dispensed with. A large number of families have not completed their homestead requirements. Considerable delay must be expected in acquiring property and little can be done to change it. The moving of families should be placed on a long-time basis. Definite appropriations should be made available and families given plenty of time to decide whether or not they desire to move. Although our program in the past has been strictly on a voluntary basis, the emergency

character of funds has forced families to make hasty decisions.

In our development program we have learned the fact that sound land utilization must recognize the inter-relationship of many uses as well as the combined influence of such uses on the lives of families and communities. On some projects there has been an opportunity to coordinate forestry, game production, water control and soil conservation as well as recreation.

Early in our planning we were faced with a decision as to the intensity of development justified for submarginal land. We concluded that lands suited primarily for timber production should be protected only against the ravages of fires and policed to prevent trespass. The vast swamp lands in northern Minnesota might be cited as such an example. As a method of fire control we have launched a program of dam construction in the old drainage ditches. These dams are saturating the peat cover, providing vast flowages for migratory waterfowl and furbearing animals, and we suspect will play an important part in regulating the flow of streams whose headwaters originate in the area. The removal of settlers has in itself alleviated the fire problem. During the past summer fires burned outside the project area but were conspicuously absent where settlers had been removed.

On our central Wisconsin game project we have felt warranted in doing more intensive development. Here it has also been possible to dam drainage ditches and create new marshes and flowage areas. This project is much more accessible to the public than the one in northern Minnesota, and we have placed greater emphasis on game management work. Trout stream improvement work on this project is perhaps the most sensational of all our development activities and has received widespread popular approval. Over fifty miles of trout streams have been improved. Once famous trout streams in the state had become sluggish, silted and warm. Transient workers have built log and stone deflectors anchored with barbed wire salvage from submarginal farms in these streams in such manner that the current has quickened and washed out deep holes. By decreasing the surface exposed to the sun and accelerating the flow, the mean annual temperature has been decreased from six to ten degrees Fahrenheit. This difference in temperature is enough to account for the absence or presence of trout.

The most intensive development work will be done on the Allegan project in Michigan. This project is located in a densely populated section of the state and will be intensively used by the people. Many foot paths, fireplaces, picnic benches, and bathing

beaches are being constructed in conjunction with wild life and forestry developmental work.

Much of the development work has been done by transient laborers who have been housed in work camps on the projects. Many of these men were formerly floaters or very low income laborers. They are mostly advanced in years, ranging from forty-five to sixty-five. They are now well fed and clothed, comfortably housed, and feel they are making a worthwhile contribution to society. In my opinion the human rehabilitation alone has been worth the cost of these projects. These men probably will never again be absorbed by industry. They have passed the employable age. They must be fed. What more constructive type of work could they possibly do than the conservation and development of our forests and streams?

Resettling Families from Submarginal Land

The satisfactory resettlement of families living on submarginal land is by far the toughest part of our program. The problem is made difficult primarily because of the characteristics of the families, because submarginal men are often closely associated with submarginal land. Many heads of families were formerly lumberjacks. Finding themselves stranded after the timber was depleted, they purchased pieces of stumpland, built log houses and made a precarious living from small garden patches, part-time work on public highways, and the appropriation of game and timber products. Some found employment in resorts as guides and caretakers.

In a typical project area, 52 families were found at the time of survey. Of these, 42 were owners and the balance renters or squatters. Only 27 of the 52 had cultivated any acreage, the balance secured their income entirely from sources other than agriculture. Of the husbands 38 were 45 years of age or over; 9 were 70 years or older; none were under 30. The education of 37 of the husbands was limited to the eighth grade or lower; only 5 husbands and 10 wives had had any vocational training. Practically all of the vocational training had been acquired in foreign countries. Thirty-three of the fifty-two families were on relief at the time of the survey. Twenty-seven of the men gave farming as their occupation; the remainder gave odd jobs, carpentering, gardening, mail carriers and local government jobs.

Starting with poor family material, the resettlement problem has been further complicated by a scarcity of suitable land for resettlement purposes. If new areas are selected the costs of clear-

ing and providing public facilities such as roads and schools make the unit cost prohibitive. Land clearing simply cannot be done on an economic basis if prevailing or security wage rates are to be paid for labor. Practically all clearing in the past has been subsidized by free labor.

In this region we have preferred to handle our resettlement problem on an infiltration basis by subdividing large farms in areas already served by roads and schools. We have attempted to work out self-liquidating farm plans on subdivided units by changing from general cash grain to a mixed livestock and dairy system of farming. Some people believe increased intensity of farming offers the only way of absorbing our surplus rural population. Others, for whose judgment I have profound respect, argue that the subdivision of farms is fundamentally unsound, and predict that within a few years the fence lines will be torn out again and the small units consolidated into large tracts for large-scale machine cultivation. Probably time alone will tell which direction was the proper one to follow. Personally, I feel that agriculture must absorb the bulk of families now living on the land, but I do not seek agricultural outlets for the surplus unemployed urban population.

Finally, the task of resettlement is made difficult because of problems of political jurisdiction. We are confronted with various institutional problems when we consider moving families from one state to another, from one county to another within the same state, and even objections are raised when we move people from one township to another within the same county. Movements of population disrupt school, road and relief services on both the originating and receiving ends of the transfer.

At the beginning of our program the Resettlement Administration had great difficulty determining policy with respect to standards of housing. The Administrator properly opposed the use of federal money for the construction of tar paper shacks. Farm buildings, including houses and barns, are the most important single element of cost in planning a homestead. Since it was decided to sell the farms on a long-time government contract, it was essential that collateral behind the government mortgage be substantial, serviceable and marketable. With this objective in mind certain minimum standards were established. The search for income adequate to amortize and maintain arbitrary housing standards led to the planning of commercial farm units of comparatively large acreage, fully equipped with livestock and machinery for economical operation. The use of relief labor for con-

struction work boosted costs and complicated the problem. This line of approach in the end led to farms which were far too complicated and elaborate for the families for which they were intended. Our land use clients were not equipped with experience or judgment to manage such farms.

Fortunately in this region the dilemma has been mostly on paper. We have spent considerable money preparing plans which were not put into construction. As a result, in Region II we have little material accomplishment to show in the way of government constructed and equipped farmsteads. We have, however, made great strides in our mental evolution, and I sincerely believe that our administrative organization is now headed in the proper direction.

In this region we have been primarily concerned with the satisfactory disposal of families whose farms were acquired under the land program. We have given first allegiance to the land use clients and have avoided the community type project. The organized community projects have some very interesting experimental possibilities, but we think they are ill adapted to the type of families which are found in our submarginal areas.

In our opinion resettlement must be done on an individual family basis. Our families require "tailor-made" resettlement plans. Factory run units do not fit. Our families come in various styles, ranging from those capable of operating commercial farms all down the scale to chronic relief families able to assume little if any responsibility for their own support.

In order to make our land adjustment complete, we have assumed responsibility for all families living within a project area. We have tried to develop individual initiative. We have encouraged the better class of people to make independent arrangements for the purchase of farms from the land banks, insurance companies or retired farmers. We have given guidance in the selection of soils and the appraisal of properties. On fourteen projects in the region there were 1,515 families originally living in the purchase areas. Of this number 599 had moved away by December 1, 1936. This represents 38 per cent of the total. Of this group, 355 moved without assistance excepting for the money received for their submarginal land; the other 243 have been given some assistance in the way of loans to help them purchase new places.

Our experience has indicated that comparatively few of the submarginal land clients will require or be able to manage commercial farms. Those who require federal aid can best be cared

for with small rehabilitation loans on leased land. As indicated before, most of the heads of families are too old to undertake the long arduous task of developing and acquiring new farms. Rehabilitation loans are flexible, and can be adapted to various combinations of enterprises.

On all projects in the region we are finding a surprisingly large number of families who must be regarded as chronic relief cases. Some of the individuals should be institutionalized. Others are widows with small children, persons with physical handicaps, and finally old couples who are beyond the state of self support. To complete the evacuation of our retirement areas, it is desirable to get such families out of the woods. School transportation and snowplowing are very expensive, likewise the dispensing of relief to families in isolated places. For this class of people we are building very small houses near the limits of the more prosperous small towns and cities. Each house is provided with from half an acre to an acre of land for gardening purposes. No effort will be made to keep cows or horses on such places. These retirement units are being given or leased to the counties as an aid to the housing of their relief load. The families which are to occupy the houses are recognized as the permanent responsibility of the local agencies. The families in these units are never moved across county lines. They are usually selected and a formal lease drawn between the county board and the Resettlement Administration before construction is started on the house.

In this region we have three projects which are being handled on an individual loan basis, one in each of the states. We have progressed farthest on the one in northern Minnesota. There we have assisted 137 families in the purchase and development of farms. On this project we deliberately kept the total investment to an absolute minimum. The project was favored by an abundance of good land which was available at very low prices and easily cleared. There has been little if any paternalism on the project. The farmer has devised plans for his own buildings. Salvage material from the old houses or logs and new lumber cut from the premises have been used as far as possible. The family's labor or exchanged labor with neighbors has been used in the construction of the houses and outbuildings, and the clearing of land. The completed units with 80 to 200 acres of land per farm, houses, barns and other outbuildings and fences, plus the additional livestock and equipment necessary to operate the farm, have cost an average of $1,619 per unit. None of the administrative costs have been charged back to the farm units. These farms

are all on excellent soil, and are favorably located with respect to schools and roads. The families have had an average equity of approximately $450 from the submarginal land which leaves an average mortgage of $1,260 per farm. On this basis we are convinced the families can pay out, and will soon become owners of their homes and property. We are not proud of all of the houses—many of them are small, indifferently arranged and commonplace. It must be added, however, that they are dry, warm, have glass windows and are equipped with screen doors. On the farmstead there is a well with a pump which delivers a supply of safe water. The families are happy and working hard. These homes represent substantial improvements compared with the places they left in the woods. We hope that the less desirable of these houses will prove temporary—that they will serve as stepping stones to higher standards after the families have learned to operate real farms successfully. This project has been favored by cheap land and could not be duplicated elsewhere in the region or possibly in the nation. We are convinced that resettlement families should not be overburdened with debts. Our efforts to keep costs down have forced us to recognize that most of the land clearing and farm building construction in the lake states in past years has been subsidized with free labor and timber, or with funds obtained from sources other than agricultural such as public employment on roads. When prevailing prices must be paid for labor and materials it becomes practically impossible to set up self-liquidating units even with the very best of planning.

I think perhaps we have been too optimistic in assuming that many families from submarginal areas can be made self-supporting. These families have been subsidized in the woods with free grazing, forest products, road and school services, and relief. Perhaps all we can hope for is a reduction in the total cost of this subsidy. Frankly, we must expect a rather high economic mortality among our resettlement clients. In my opinion the program can be justified if only 50 per cent succeed and we reduce the public subsidy on the balance.

Discussion by W. D. Nicholls

University of Kentucky

I wish first to refer to that part of Mr. Nowell's paper dealing with the problems of rehabilitating families living on submarginal land and not having access to opportunities for making a living either from farming or non-farming occupations. This problem exists in an acute degree in the

Southern Appalachian Region in which is situated nearly a third of the area of the State of Kentucky and we have been studying the problem for several years. Mr. Nowell refers to his experience with somewhat similar problems involving the need of relocating such families, and his conclusion that the moving of these people should be on a long-time basis agrees with the view expressed in a discussion which I presented on the program of this Association two years ago and is further supported by studies which have been continued in Kentucky. The rather dense population living on the farms of this area formerly relied chiefly on the timber and coal resources for a livelihood. The depletion of the forest resources and the falling off in the demand for coal has left this dense population in a condition of idleness and dire poverty.

In our studies we have classified and mapped typical areas of this territory with reference to possibilities of the land for affording human sustenance. About 15 per cent of the territory, very rough and practically evacuated of its population, was classified as land having no agricultural possibilities which might well be reserved at once as permanent forest land. About 78 per cent of the area, somewhat less remote and rugged but rather densely populated was mapped as unsuited for agriculture and designated to be eventually abandoned as farm land and reserved for permanent forest use. About seven per cent of the territory consisted of areas more accessible and having a considerable proportion of productive well-lying land and this was designated as suitable for permanent agricultural use. This very limited area of good agricultural land furnishes the only permanent basis for agriculture. On this land the use of the more intensive crops is called for, and a greater intensity of culture for all crops grown.

Our studies lead to the conclusion that families now living on the rougher, poorer lands, a majority of whom are dependent upon public relief, should be given assistance in developing as completely as possible their limited areas of arable land continuing to live where they are until opportunities for resettlement in industry or on suitable agricultural land become available. We believe that eventually these rough, poor areas should be evacuated, but that the best policy would require that the evacuation be accomplished slowly and voluntarily, and that a period of a generation or more may be required for this evacuation. If and when families on this land can get industrial or other employment outside the region they should be encouraged and aided in doing so.

Any federal land purchase program in such areas might well be set up on the basis of permitting the present families to occupy the farms, use the present dwelling houses, pasture land, and firewood, and cultivate the level or gently sloping land under rigidly prescribed conditions during the rest of their lives; but no new families would be permitted to establish themselves in the area except those which might be needed in the work of developing the forest. The young people would be expected and encouraged to migrate, and the entire area would be evacuated at the demise of the present heads of families after which time the only families on this rough land would be those required in the operation of the purchase area.

Our studies of the migration of families from submarginal lands indicate that urban employment, when such is to be had, offers a better chance

for success than employment on farms in commercial agricultural areas. It is difficult for such families to get a foothold in commercial agriculture because of lack of capital. Such migrants in Kentucky were also shown to be greatly handicapped in getting located because most landowners in the commercial agricultural regions are averse to employing mountain men because of their lack of experience in the growing of tobacco or other specialized crops, and the use of large-scale farm teams and implements. Our studies, nevertheless show that some families from the mountains can adjust themselves to conditions in commercial farming areas. For more than a generation considerable numbers of mountain families have migrated to Garrard County which is typical of the Central Kentucky counties bordering the mountain area of the state. In a representative block of territory, made up of twelve voting precincts in Garrard County, records were obtained from 154 families which had migrated from the mountains during the period from 1900 to 1935. Nearly all of these families had sufficient funds from the disposal of their mountain farms, or from other sources, to pay cash or to make a substantial payment when they purchased farms in the new location. The proportion of these operators who made a success as farmers compared favorably with that of farmers native to the area and practically all expressed a preference for living conditions in the new location over those of the communities from which they came. Only a small proportion of the families which originally migrated to the county returned to their former locations. A study was made of 25 such families and nearly all of these families stated that they had a much better living on the good agricultural land to which they migrated and that they made a grave mistake when they returned to the poor rough land of their original communities.

Mr. Nowell's view that it is preferable for the most part to handle the resettlement problem on an infiltration basis whenever practicable I believe is sound. He suggests the subdividing of larger farms in areas already served by roads and schools, working out self-liquidating smaller farm units and increasing the intenseness of the system. This procedure is justified by considerations of family welfare if not by strictly economic considerations. Objection may be raised that farm management studies generally have shown that small farms afford their operators smaller labor and management incomes than large farms. Considerations of practicability however, decree that few resettlement farms can have crop acreages large enough for more than two work animals. Admittedly, such farms will be handicapped in various ways, and yet all over the United States small farms are interspersed among larger farms, and their operators in many cases are making a comfortable, albeit a modest living. These operators in many cases, it is true, find it necessary or desirable as opportunity arises to hire themselves or their teams for work on neighboring farms or elsewhere. So also, in Denmark are found many smaller operators living on tracts ranging from five to ten acres, places much smaller than the average Danish landholding. These farmers have smaller incomes than their neighbors who operate twenty or thirty acres. The sons of these smaller farmers usually leave the farm to work in urban occupations and in many cases their daughters work in England in domestic service. Similar situations are common in Germany, Switzerland, and other countries where arable land is scarce in relation to those who desire to

live on the land. Such small holdings are primarily homes. In spite of the evident economic disadvantages they represent for their owners probably the best opportunity open to them for a satisfactory life. It is probably a safe prediction that both in this country and abroad, a considerable proportion of all farms for many years to come will be small holdings.

Mr. Nowell does well to recognize the fact that only good agricultural land should be used to set up resettlement farms. Here I recall vividly the occasions three years ago when I sat in council with persons charged officially with the duty of selecting land for the resettlement of families. These officials held the view that the land purchased for resettlement should be that offered at a low cost per acre, their theory being that by the time the cost of building the dwelling house and other needed structures was added to the cost of the land the total cost per acre of the holding would be too great. It availed nothing to point out what was well known to competent farm economists, that the cost of even the best farm land is a minor part of the total cost of the small holding, and to set up the holding on cheap land makes it more difficult rather than less so to meet the mortgage obligations from the products of the holding. The outcome of these projects demonstrated the seriousness of the mistake of using cheap land for that purpose.

I am in accord with the policy advocated by Mr. Nowell to encourage clients capable of doing so to make independent arrangement for the purchase of their farms and to devise plans for their own buildings, holding down the indebtedness to a minimum. This holding down of indebtedness greatly increases the chances that farmers can pay out and become the owners of their homes. It is significant that these homes, although modest in design and size, represent substantial improvement over the places from which these families migrated. The less desirable of these homes are expected to be temporary and to serve as stepping stones to higher standards after the families have learned to operate their farms successfully. This point of view is in marked contrast to that which has been put into effect in some other resettlement projects in which the high cost of the houses has made the total cost of the resettlement tract so great that it will be difficult and in many cases impossible for the settler ever to pay off the debt. It would seem that the welfare of these families will be served much better if, in this matter, a middle ground is taken between the ideal and the practicable.

INTERREGIONAL COMPETITION AND COMPARATIVE ADVANTAGE IN AGRICULTURE[1]

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This paper will be devoted largely to the second part of the title assigned—that is, to comparative advantage in agriculture. If each area were producing the products in which it had the greatest advantage under the given conditions competition would not bring undue pressure on any area, and the total product would be produced with the least effort. But since we rely upon the competitive system to effect the adjustments made necessary by changing conditions, it is the interregional competition which results from attempts to adjust production in line with comparative advantage that is feared by those who are forced to make the adjustment. An analysis of comparative advantage is therefore necessary to an understanding of interregional competition. It is likely that a closer examination of the problem will reveal more elements of reciprocity than of rivalry in the geographic pattern which has developed in our agriculture.

Origin and Development of Comparative Advantage Theory

A search for principles which would explain the interregional variations in agricultural production began with the early development of American agricultural economics.[2] Von Thunen's principles of localization of agricultural enterprises with respect to their consuming markets (on the basis of specific value and perishability of the product) were probably first recognized as applying to the problem. Later the more general principles of specialization and comparative advantage as developed in the theory of international trade were applied also to the analysis of regional specialization within a country.[3]

The term "comparative advantage" as used in agriculture is thus an outgrowth of the analysis by the English classical economists of the reason for and the effects of international trade. They developed the thesis that with variation beween countries

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

[2] Note the chapters on types of farming in the early Farm Management texts. Especially: Warren, Farm Management, Chap. II; Spillman, Farm Management, Chap. II and III. Also by Spillman, Types of Farming in the United States, Yearbook of the Department of Agriculture, 1908.

[3] See especially: Taylor, Agricultural Economics, Chap. V and VI; Black, Introduction to Production Economics, Chap. V-IX; Holmes, Economics of Farm Organization and Management, Chap. IV; Black and Black, Production Organization, Chap. VIII; Tapp, JOURNAL OF FARM ECONOMICS, Vol. VIII, No. 4; Elliott, Types of Farming in the United States, Census Monograph, Chap. V; Black, Research in Farm Management, Social Science Research Council Bul. No. 13, project 6.

in the labor cost of producing different products each country would benefit by specializing in the products in which its labor was most effective, and then trading these for products in which the labor of other countries found its most effective use. They assumed that within a country capital and labor would flow into the various industries and locations in proportions which would equalize "profits" and wages in all enterprises, but that this would not take place across national boundaries.[4]

The classical analysis of comparative advantage is built upon the labor theory of value. It also assumes that within a country there is free competition, complete mobility of labor and capital, and that maladjustments in production are corrected over a period of time. Agricultural economists who have worked on the problem have recognized the unreality of these assumptions. They have attempted to define comparative advantage in terms of the tendency of an area to seek the most remunerative use of its productive resources in view of its alternatives in production, and in view of the market conditions which result from the demand for the various products and from other areas producing in accordance with their best alternatives. Thus an area would operate in accordance with comparative advantage if its production were so organized that, considering prevailing prices for alternative products, it would produce those commodities, and in those proportions, which would maximize returns for the use of the resources which temporarily or permanently are *fixed resources* in that area.

It should be noted that such definitions are in terms of value output for all resources rather than for labor alone; also that they do not assume complete mobility of labor and capital. On the contrary, they emphasize the highest alternative use of the productive resources, recognizing that some of them may be fixed and cannot be shifted into other lines of production, except perhaps over a long period of time.[5]

However, competition in agriculture has been taken for granted, and also that adjustments toward comparative advantage work themselves out through the actions of individual farmers who are seeking the highest returns for the resources at their command. In other words, it has been assumed that the farmer

[4] For the early statements of the principle of comparative advantage or comparative cost see Ricardo, Principles of Political Economy and Taxation, Chap. VII; also Mill, Principles of Political Economy, Book III, Chap. XVII and XVIII.

[5] Haberler, Theory of International Trade, has taken the classical theory as a point of departure and analyzed it in terms of the equilibrium theory of value, recognizing also the fixity of certain resources. He states that the classical theory of international trade can be reconciled with modern theories of value and distribution without invalidating its conclusions with respect to trade policy. See Chap. IX-XII.

will rationalize his production on an "opportunity cost" basis. We need much more detailed information on how this process operates in practice, and to what extent it will effect the adjustments made necessary by major changes in prices or production conditions. In any realistic analysis of comparative advantage we must also recognize the relative immobility of some productive resources. This means that, since comparative advantage will change over a period of time, rapid adjustments will result in friction, and perhaps in heavy losses to the individuals forced to make the adjustment.

Bases for Advantage or Disadvantage

There is, of course, a wide range in type and quality of all the resources used in agricultural production. The factors which may differ as to location and fixity, and therefore form the bases for the production advantages or disadvantages of an area in a given type of farming may be classified briefly as follows:

Physical factors.—Differences in climate, soil, surface and water supply establish broad limits to the physical production of many enterprises. Within these limits a given combination of physical factors may be much more suitable for one type of farming than for another. Physical factors are also important in determining the desirability of an area as a place to live.

Location factors.—The location of an area with respect to the market outlet for its products often sets as important limits to the type of production at a given time as do the previously mentioned physical factors. Witness the development of milksheds around our large cities. While the location of an area is physically constant the effective location may change with development of markets and transportation facilities. Hence location factors are probably tied more closely to economic development than to the actual fixity of the land resources.

Biological factors.—Weeds, insect pests, plant and animal diseases, presence of soil bacteria and development of new breeds and varieties come under this heading. As examples one may recall the effects of the boll weevil in the cotton region, and the breeding of hardy corn varieties on the northwest extension of the corn belt.

Human factors.—A group which can best be described as human factors includes among others the structure and density of the population, nationality groupings, their educational attainments, accustomed standards of living, rates of work, and community life.

Capital factors.—The availability and cost of funds for new investment varies considerably between regions wholly aside from the risk factor. Although the activities of the Farm Credit Administration have recently reduced such variations, it indicates that even new capital has much less mobility than the classical economists assumed. The size and condition of the existing fixed capital plant is an important consideration. Over a short period competition may be met by utilizing on a *prime cost* basis the productive equipment previously invested in the industry. One must also consider the fixed capital invested in community development such as roads, schools and public utilities; also whether these are paid for or have outstanding indebtedness which constitute fixed charges against the farms of the area.

Historical factors.—Market connections which have been established over a period of years and a developed reputation as a source of supply may be a decided advantage for certain products. Skill acquired through years of experience in a given type of farming is also important.

Institutional factors.—The most important of these are probably those connected with government. There are important differences between states in the government services provided and in systems of taxation which may not be offset by other factors. National programs with respect to agriculture are likely to have different effects on producers of even the same commodities in the different regions. Certainly effects of tariffs vary among regions. Regulations such as those pertaining to sanitation in milk production may be used to give a certain area an advantage over its competitors. Cooperative buying and selling organizations which effect real savings to their members are definite institutional advantages. A well developed community life is a non-pecuniary advantage which may compensate for a higher monetary income in other areas.

If we assumed complete mobility of labor and capital the only differences between regions which would form the bases for advantage or disadvantage in production would be those due to physical adaptability and location. It may be granted that the longer the period under consideration, the more important these two factors become. They may perhaps be considered as basic to a long-term land utilization study, but, for shorter periods at least, the determinative advantages of an area may consist of other factors, such as the institutional, which may or may not persist over longer periods. We therefore need to begin by analyzing all of the factors contributing to the production advan-

tages or disadvantages of an area at a given time, and then attempt to determine the relative permanency of each factor and to study the possible changes in its effects over a longer period.

Changes in economic conditions are likely to bring about the most important realignment of production advantages. If population increases or if improvements in production give increased per capita purchasing power the demand for agricultural products will increase. On the other hand, the demand situation will be considerably upset by business depression and the resulting loss of purchasing power. Also the effects of a general increase in demand for agricultural products may be offset for producers in a given area by a shifting of consumption to other products, by a shifting of the consumer population, or by the opening up of new production areas to compete with the old.

Changes in technique of production, both engineering and biological, are likely to affect areas differently. So far many mechanical improvements have placed emphasis on level land and large fields. Improved breeds and varieties can frequently best be utilized on more productive land closer to markets. Improvements in transportation will reduce the emphasis on distance to market and tend to emphasize the importance of physical differences.

Adjustments on Individual Farms

The combination or pattern of production advantages and disadvantages which is to be found in any one area at a given time is the situation to which an individual farmer attempts to adjust his production. Many of the factors which limit his best alternatives in production are outside of his control as an individual—roads and other transportation facilities, local and terminal markets, taxation systems, etc. As an individual he is forced to accept the present situation with respect to these factors in spite of the realization that changes in them may decidedly alter his production alternatives and raise or lower his income.

To illustrate the individual farm adjustment problem let us take the case of a representative farm in an area with a given set of advantages and disadvantages for the prevailing type of farming—dairying for instance. We may assume that the farmer has been in business for a number of years; that he owns a farm with a certain number of acres; that he is equipped with buildings, livestock, machinery and supplies for this type of farming; and that he has some family labor available. Moreover, he has

a certain financial and credit status which determines the availability of funds needed for the conduct of present operations or for possible changes in enterprises. He may also have established a crop rotation such that changes in one enterprise involve changes in several others. This "going concern" is the result of past judgments as to the highest income use of these resources in view of prevailing or prospective price and production conditions. If now an important change has taken place in these conditions the farmer is certainly not entirely free to make an immediate shift in his system of farming to correspond with such change.

In the use of his resources he must distinguish clearly between those which are for the time being *fixed,* or specific for present uses, and those which are *variable,* or can be shifted to other uses with varying degrees of success. The variable resources are purchased in the market (usually during the production period) to be used in the given production process. Current supplies (such as feed) and hired labor are two resources which the farmer can usually secure in the quantities needed and for the purpose at hand. In other words, he has free choice in their use at prevailing prices.[6] While the other resources may have some elements of flexibility, they are in most respects *fixed resources* for the time being. Alternative opportunities for family labor are usually limited. The present acreage of the farm is likely to be regarded as fixed. Buildings and machinery have been adapted for specialized uses—a dairy barn for instance.

The productive life of the fixed capital resources exceeds the production period and therein lies the element of fixity. Once the investment has been made their original cost is not a resistance to their use in any way that they will contribute most to the net income. However, at the time of replacement of a building or machine the initial cost again becomes an actual resistance to production but, since the various items of equipment are replaced at different times, even the judgment as to replacement is conditioned by the status of other fixed resources.

The farmer's entrepreneurial problem, then, is to take the fixed resources at his command and combine them with such amounts of the variable resources at their market prices as will result in the highest return for the use of the fixed resources. But the

[6] Hired labor is a *variable resource* to the individual farmer, but because of lack of mobility it may be a relatively *fixed resource* for the area. Some equipment, such as threshing machines, may also be hired by the individual farmer, but this implies ownership by other individuals in the area, and often if the farmer is to continue in the business he is forced to make use of such equipment even though it is hired.

farmer may be quite aware of the shift which should be made in his farming program, and he may be perfectly willing to forget about past investments in equipment which would remain unutilized under the new plans, still he may not be able to secure the funds necessary for the adjustment. In this way frequently the creditors rather than the farmer dictate the type of operation actually carried out. On the other hand, high fixed charges, such as debts and taxes (or high cash rents for a tenant), may force more intensive use of the fixed resources, especially if this will not involve new investments. A farmer heavily in debt may be driven to milk more cows, which will mean longer working hours for the farmer and his family.

It is evident that the individual farmer's adjustment to changing production and price conditions is closely circumscribed by past commitments, by his financial situation, and by community factors. One may therefore raise the question for later discussion as to whether individual adjustments alone should be depended upon to bring about the shifts necessitated by major changes in conditions.

Area Adjustments as Accomplished Through Individual Action

Having considered the individual farmer's adjustment problem we turn to the effect on production in an area and the systems of farming that come to prevail there at a given time of such adjustments as farmers as individuals are able to make. We should also attempt to discover how adjustments in competing areas react on each other.

First of all we need to clarify our concept of an area. Perhaps it can best be described in terms of a geographic unit with essentially similar production advantages and disadvantages which result in a similarity of production opportunities. Actually, most agricultural regions have such variable physical resources that it is not possible to delimit areas of important size with similar physical conditions unless similarity is broadly interpreted in terms of a certain pattern of physical factors. In so far as types of farming have been adjusted to the similarity in production opportunities, one would expect to find in such areas a somewhat uniform pattern of farming types.[7]

Such an area is in competition with other areas producing the

[7] They would then coincide with those delimited according to prevailing types of farming. See *Research in Farm Management, Social Science Research Council Bul. No. 13*, p. 28. The writer's colleague, F. T. Hady, has suggested the above concept of an area for the study of comparative advantage. It emphasizes the setting in which farmers work out their farming systems.

same products for a given market, and also with areas producing other commodities; that is, in so far as other alternatives exist for the use of the resources. On the individual farm the limit to the production of one product is often the greater profitableness of another product. So also within an area and between areas the limit to one type of farming is found in the return to be secured from another type as it becomes necessary to utilize land and locations less suitable for the products entering into the combination.

To work this out on a theoretical basis we might assume a situation in which a fair degree of adjustment has been made to production advantages and market conditions, that fixed resources including land are being utilized in their best alterna-

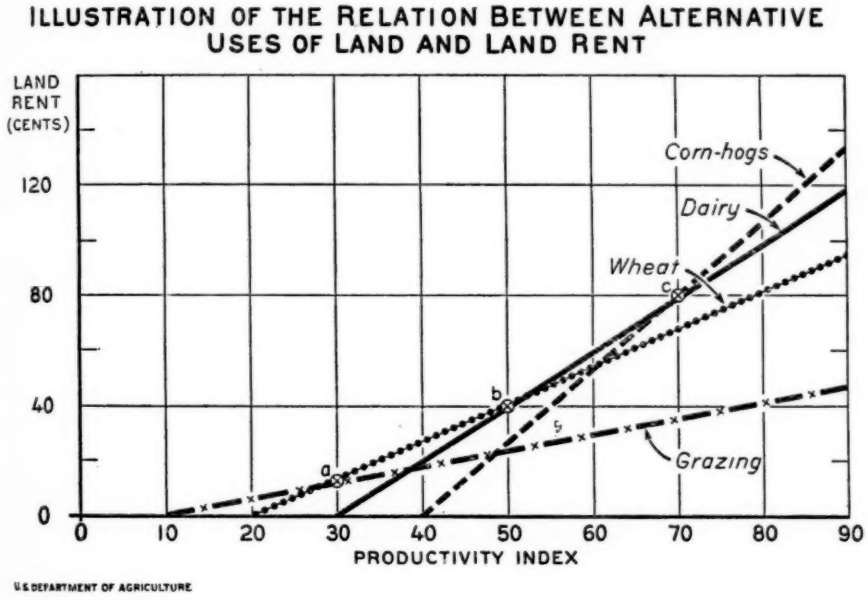

FIG. 1. Illustration of the relation between alternative uses of land and land rent.

tives, and that variable resources and new capital are being paid for at their market rates. If it is then found that a higher return can be secured from a new use of the land in an area, the additional return accrues first to the farm operators who initiate the new use and who can then afford to outbid operators devoting land to the former uses. In this way land rentals and land values would tend to be established again at such levels that prospective

returns to operators of comparable ability and returns to other fixed resources would be roughly equal in the different systems of farming that would prevail within the region.

Thus the scale of land rents would be established by the competitive bidding of farmers for the use of land in different systems of farming. The equilibrium which theoretically results from competition between systems of farming for the use of land may perhaps be pictured as in Figure 1. At the lower extreme we have land actually submarginal for any use under prevailing conditions. Land with a productivity index of 10 represents the extensive margin of land use and true "no rent land." That is, it will barely pay a return to other resources than land sufficient to attract them from other uses. Between the indexes 10 and 20 we have land which is used for grazing, but it has no alternative use, hence it will be utilized for grazing or left idle. Land with a productivity index of 20 could be used for wheat production, but if so used it would barely pay a return to the other resources sufficient to attract them into the combination, and it would pay no rent. In the grazing use, however, this land will yield a rent of about 7 cents an acre, hence its best alternative use is grazing under the prevailing conditions.

Land with a productivity index above 30 will yield a higher rent for its use in wheat than in grazing. Point a in Figure 1 then becomes the *wheat-grazing margin.* Land with a productivity index from 20 to 30 is "submarginal" for wheat production, not because it won't grow wheat and pay a competitive return for other resources, but because the grazing use will pay a higher return for the land. Similarly, point b on the chart indicates the *dairy-wheat margin,* and that land with a productivity index above 50 can earn a higher return in dairying than in wheat. As we go up the scale we find land that could be used in three or four different systems of farming. The choice depends upon the returns to be secured from the products of each system and the consequent strength of the bid for land for each use.[8]

In the above illustration we assumed to begin with, an increase in demand for the products of one type of farming which enabled it to outcompete other products for the use of suitable land. This, of course, would have the effect of limiting the production of other products which have previously been the strongest competitors for the land; hence their prices would increase and a new balance would be established. Unless the increased demand in

[8] As previously stated, it is not likely that many areas will have only one type of farming. The variations that will arise, due to differences in aptitudes of operators and to other factors, will produce a pattern of farming types within an area.

question were offset by decreased demand for other products the new balance would attract additional productive resources into agriculture and both the extensive and intensive margin of land uses would be extended.

Let us now suppose a considerable decrease in demand for the products of one type of farming. The first impact would be on the incomes of farm operators, and the seriousness of its consequences would depend upon the alternatives for the use of the land on which the products are grown. Going back to Figure 1, drastically lower prices for beef cattle and sheep would mean that some of the grazing land would go out of use, since it has no alternative use. In this process some ranchers would incur such heavy losses that they would eventually have to abandon their holdings.

The adjustment process would be scarcely less drastic in the case of wheat production near the wheat-grazing margin. The only alternative use for the land is grazing, and once the native sod has been plowed it is difficult to grow a sod mat on the land. Consequently, grazing represents a very low alternative use for such land. The adjustment is not readily reversible.

Many types of farming have been established for which the demand for the products has been such that land devoted to them has yielded a high rent, but still the alternatives to such types may be far down the income scale. Orcharding and market milk are good illustrations. Once an orchard has been established the best alternative use for the land may be to retain the orchard regardless of prices, even if little or no land rent, or return to other fixed resources, can be realized. Of course the lower limit is reached when it will pay better to pull the orchard and begin a new system of farming. The only difference between this illustration and the two previous is that land rents and land values were higher to begin with; therefore, the squeezing process can go further before the use of land is actually changed. Farmers with high indebtedness and other fixed charges are just as likely to lose their farms in this case as in the others.

The shock of reduced income, as long as it is confined to one type of farming, is likely to be the least in areas with other alternatives which will yield close to the same income as the farming system which has been practiced. This is especially true if the alternatives do not require much new investment or new technique. The corn-hog, beef cattle, dairy alternatives in much of the corn belt illustrate this point.

We may also inquire as to what may happen when greatly re-

duced demand causes drastically lower prices for all agricultural products as during the recent depression period. The effects on production would probably differ with the amount of fixed charges the producers are required to meet. If debts, interest and taxes are high, producers are likely to attempt to maintain production but to cut cash outlays wherever they can. Needed repairs for buildings and machinery will be postponed as much as possible. Less labor will be hired and the operators and their families will work harder. Reductions will also be made in expenditures for family living, which means that farm families accept lower returns for their efforts. If fixed charges cannot be met even after such adjustments, debts, interest and taxes will go unpaid. Then farms will be foreclosed upon and the farmers will probably continue as renters in the area. When liquidation has thus run its course the foreclosed farms eventually will be sold to new owners at values representing a capitalization of the prospective earnings in their new best alternative uses, considering the changed conditions. These are likely to be less intensive uses than previously, and if other occupations have been open to farmers during the period of adjustment there will probably be fewer farmers and larger farms.

The Social Point of View on Adjustments

We have now traced area adjustments as they are likely to take place through the actions of the individual operators, assuming little if any external aid or interference in such adjustment. It is apparent that the change made necessary by decreased demand for the products of an area or by increased competition from other areas, is a painful process, and one that often requires years to complete. The question which now arises is whether even at that, the process can be depended upon to shift each area to its highest alternatives in production. Suppose that the new conditions require a change to an entirely different type of farming. The area has no overhead entrepreneur to guide such adjustment. The sizes of farms, the number of farmers, the community services and the whole community structure has been built up on the basis of the old use. Is it possible that some of the institutional factors at least, have become so fixed that external forces are required to jar them loose?

Before taking up that question we need to consider what should be the social point of view in adjustment. Perhaps the ideal pattern of adjustment for a nation would be one which would not only yield the highest long term return for the use of its re-

sources, but which would also permit equal rates of return to the same grade of resources in their marginal uses in all areas. The marginal returns in agriculture should also be equal to those in other industries for the same grade of resources. Farmers of the same grade of ability would then have an opportunity to earn the same return for their labor and management regardless of location or system of farming.[9] Such an adjustment could only be obtained with perfect mobility of labor and capital, which would permit their flow into and out of any line in accordance with changing production advantages and changing demand. It also presupposes a return to land exactly in proportion to its contribution to production in all areas. These, however, are assumptions which we have branded as unrealistic. But even though it is not possible to achieve an ideal adjustment, it might be feasible to equalize income opportunities between areas somewhat better than the results achieved through purely individual effort.

In a practical approach to the problem we might start with the aim of maximizing the returns for the use of the *fixed resources* of an area. This again brings up the question, what resources are fixed, and for what period of time? Obviously the land resources are the most permanently fixed. As previously mentioned, buildings, other land improvements, and machinery to a lesser extent, are also fixed resources for varying periods of time. But we are interested primarily in maximizing the returns to the people who utilize these fixed resources. Given sufficient time, perhaps the population of an area will tend to adjust itself in such a way that the returns they receive will be equal to their opportunities elsewhere. For the short and middle term, however, the people on the land are also likely to be *fixed resources,* hence the social aim should be to maximize the returns accruing to them for the use of the other fixed resources.

The problem is well illustrated by certain communities on the *wheat-grazing margin* in the Northern Great Plains Region where the land is now being used for wheat production. Studies there might reveal any one of the following situations.

Case I.—The total *gross income* for the area over a period of years may actually be lower in wheat farming than in its other alternative use—grazing. Still the area may continue in wheat production because individual action cannot accomplish the shift once it has become established in wheat farming.

Case II.—The total *gross income* over a period of years may be

[9] It is recognized that there is no practical measure of the grade of some resources which is independent of the price offered for their use.

somewhat higher in wheat farming, but not enough higher to pay prevailing prices for the variable resources, and yield the return to farm families which they consider necessary for a living, including the support of the public and private institutions which they require in order to continue living in the area.

Case III.—The total *gross income* may be higher in wheat farming, and temporarily may support the present population (including the necessary institutions) on a standard which they are willing to accept; but only while they are mining the virgin soil, or as long as the present fixed capital plant can be utilized. In other words, wheat farming is not self-maintaining. A permanent agriculture therefore cannot be built on this use of the land.

Case IV.—The total *gross income* of the area may be enough higher in wheat farming than in grazing to support the population and to maintain the area in that use, but still not sufficient to pay farm families as high a return as they could receive for their efforts in other areas or in alternative occupations.

In the latter case the social dividend would be increased if these farm families were located in the areas where they could earn the highest return for their efforts, but it is a difficult problem to decide how the government can assist in bringing about such an adjustment. In cases II and III a positive program of government assistance is more necessary because the areas are not self supporting in their present uses, and society will be asked to contribute to their support in one way or another. When and if a program is developed for shifting the major use of the land in these areas, it should be remembered that if the gross income is lower in the new use some of the people in the community who have been selling goods and services will find their business curtailed. Whether or not they should be considered as a part of the fixed resources of the area depends upon their other alternatives. In such an area they might eventually find their business disappearing entirely unless the major use of land is shifted, but a substantial argument can be made for giving them some compensation, based on the difference between taking their losses immediately and a more gradual liquidation of their investment.

If we return to Figure 1 in our land rent illustration it is evident that the four cases just discussed are maladjustments in land use under present and prospective price and production conditions. Even in case IV the land should probably be used for grazing, since in wheat production it does not pay a return to

farm families equal to their opportunities elsewhere. It should be emphasized, however, that these are not self-adjusting maladjustments. One concludes that society should exercise control to prevent if possible the settlement of land unsuitable for cultivation, and to relieve distress of stranded areas once such settlement has been permitted to develop. Space will not permit discussion of many other cases of maladjustment that are not self-adjusting without some outside aid.

Information Needed for Analysis

In conclusion we shall attempt to sketch briefly an outline of the information needed for studying the comparative advantages of an area and its competitors in production. First of all we need a complete descriptive inventory of the productive resources—the land, the fixed capital and the human factor. The physical production possibilities need to be analyzed both with respect to prevailing practices and alternative methods. We also need a complete inventory of the other production advantages and disadvantages in each area. This means a study of the community organization to which the individual farmer attempts to make his adjustment. For instance, we need to study the organization of local government, of local marketing and transportation, and the possible changes in these. Furthermore, we need to study the market outlets for alternative products and the possible changes in demand for them.

We cannot over-stress the importance of differentiating clearly between the different time periods under consideration. The fixed resources change in kind and quantity with time, and demand and price conditions are also likely to be materially altered. Comparative advantage therefore cannot be studied as a static concept. The technique must be to analyze the present situation, to discover what changes are likely to occur, to encourage adjustment in the direction of these changes, and to continue collection of material which will indicate the need for even further adjustments. Out of such study should come some principles which can be used as guides in programs of adjustment.

It is evident that information is needed on production and prices of the alternative products which will be sufficiently complete to permit judgments regarding the best alternative use of the fixed resources of the area and of its competitors in production for varying time periods. The writer is well aware that this is "a large order." Fortunately, in many areas much of the information has already been obtained in connection with other

studies. Another redeeming feature is that each fragment of information will be useful by itself as well as in combination with other parts of the picture. We need, however, to synthesize the old and the new information into a form in which it can be used as a guide in adjustments toward the best production alternatives of an area. It is likely that such a synthesis can be of most value for areas with the greatest present maladjustments in use of resources, or where we have evidence that important changes are likely to occur.

Discussion by W. C. Waite

University of Minnesota

This paper of Dr. Johnson's may be thought of as sort of prelude to a series of studies we hope to see carried on during the next few years, and is to be judged as such. It is a frank statement of the difficulties that lie ahead before fruitful research can be completed in this field. It is notably circumspect with regard to predicting usable results or detailing the methods of procedure to be followed. There is little in the paper with which I find myself in disagreement. We seem at present to be very clearly in the stage of talking about what we "need" and what we "ought to have" rather than in a critical examination of our results and their meaning. The only possible objections to be raised at such a stage are on the grounds of adequacy of scope and character of the data thought to be needed. These requirements appear to be well thought out and carefully considered in the paper. There is, of course, a reason for the rudimentary state of this research. We are considering a new problem or at least one which we have only recently been forcibly driven to consider. We have previously either ignored the question or have had little success in our research attack. No one will, I believe, question the necessity of work in this field and the significance of whatever progress can be secured.

Dr. Johnson has been careful to avoid committing himself as to how far usable results may flow from the research in this field. He may, in fact, have considerable scepticism, but his failure to specify limitations lays him open to suspicion that he expects much. It is on this phase of the study that I have some apprehensions.

In the first place there is difficulty with the concept itself. Comparative advantage is without doubt one of the most elusive of our economic concepts. In the broad, general discussions of problems of trade among nations is serves well enough to state the outlines of causes and results. It is fairly clear that since Australia has relatively more land and less labor than England that Australia may profitably turn to agricultural products for exchange with England for manufactures. But as we attempt to pin the discussion down to more and more specific problems we find the concept becoming more and more elusive and difficult to examine precisely. Moreover, the factual data become increasingly difficult to assemble. But this is, of course, true in part at least of many of our concepts. One thinks of the current discussions among the theorists respecting equilibrium economics in this connection. One group presses

for greater and greater exactness in concept and definition. The list of qualifications grows and grows and when we finally arrive at logical exactness, we have the thing in a straight jacket. The creature looks strange indeed and so far removed from actual life that we wonder about its usefulness in the analysis of current problems. Economic concepts appear to require some margin of fluidity to make them useful.

The consideration of the concept of comparative advantage given here runs strongly in the terms of Marshallian economics and calls to mind Marshall's classic discussion of the fertility of land in Book IV of his Principles. Here he concludes that, "The term fertility has no meaning except with reference to the special circumstances of a particular time and place." He then further observes that even when so limited there is some uncertainty in the use of the term. The point is that what comparative advantage is depends upon antecedent assumptions with regard to social policy, about which, as far as I am aware, there is no settled agreement. Comparative advantage must be with respect to some object or some purpose. Do we desire some subsidization of agriculture as a source of say raw material for our cities and industries, or for political stability? Or do we have a large portion of our population unsuited to absorption in speeded up factory processes and for which we must find an outlet in hand trades of which agriculture may be our best adaption? Are we to be an integrated part of a complex world economy or a self-contained unit? Each shade of social policy modifies the margin.

In the second place it is evident that analysis of comparative advantage, however defined, depends upon a great many different factors.

This means that immense detail of information will be required for an analysis of individual problems. Mr. Johnson recognized this broadness of scope in his paper and lists some seven different categories of required types of data, and under these he mentions various examples. All told there are some forty specific items mentioned. These categories cover a wide range, evidently we can not answer the problem from a knowledge of physical details alone but we must stretch through personal and sociological factors, marketing and transportation, and institutions of various sorts as well. One may rightly wonder whether all these can be properly weighted and evaluated to produce a final conclusive answer. Some of these factors, it is true, are constants for an area as a whole but as we come closer to the individual farm there are multitudes of variations and a wide variety of factors still remaining. A little experimentation with combinations and permutations will indicate the enormous range of possibilities.

Not only are many factors involved in the problem of comparative advantage but the relationships among these factors are complex with many interdependencies or intercorrelations.

During the past few years there has been a considerable discussion carried on in the English technical journals as well as in some of our own relative to the old familiar doctrines of increasing and decreasing cost. One thing stands out clearly in these controversies, that there is grave doubt of the validity in many circumstances of the summation of the individual organization responses into a total or aggregate for the industry as a representation of resulting change. In many cases as these organizations change the size of their output or the scale of their operation the combined influences of the industry as a whole operate to raise or lower

the level of these cost curves for all. When this occurs the resulting situation must differ from that predicated upon a summation of individual responses. How much of this may be true for agriculture we do not know. It is certain, however, to prove a disquieting and disturbing factor as we review our data.

It is an accepted proposition that the simpler and more limited we make our problem the more we increase the probability of a definite result. The more complex the problem the less the precision we are able to secure and the greater the caution we exercise in reaching our conclusions. One would be foolish indeed not to expect useful results from this field of study. I am convinced that we will learn a great deal; I am only skeptical of how far we may drive the line where we may be sure of the reliability of our conclusions. The very complexity of the problem must make us cautious in expecting definite answers. If they are to form a basis of social action then they must be utilized by bold men who are willing to draw wide inferences and supply much from their native intuition.

Finally there is the difficulty that this must be a moving analysis. As Dr. Johnson has well said, "Comparative advantage can not be studied as a static concept." A little reflection on our predictive powers and our progress in the field of dynamic analysis should again have a sobering influence. We deal here with a problem of about the size and character of say a study of business cycles, a field into which the best brains of economics have been poured for twenty years with a modicum of results, or say the problem of the relationship of agriculture and business. Study will be fruitful, there need be no doubt of that, but the complete and adequate answer lies a long way in the future if indeed it can ever be provided.

IS IT PRACTICAL TO PLAN FARM OPERATIONS ON AGRICULTURAL FORECASTS?[1]

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All are familiar with the record of about thirty-five hundred years ago when Joseph of Egypt planned farm operations on a national scale, based on the agricultural forecast that seven good grain crops would be produced and that those seven good crops would be followed by seven partial or complete crop failures. According to history, the forecast was one hundred per cent accurate, and the Egyptian and neighboring peoples profited greatly because of Joseph's action. Our question at this time is "Is it practical for the twentieth century farmer to plan his farm operations based on such agricultural forecasts as are available to him?"

I shall not attempt to show how accurate the forecasts based on the national and state outlook reports of the past ten years have been. Others have studied the records to see how nearly things have happened as the forecasts have indicated and have found that such forecasts have usually been correct from eighty to ninety per cent of the time.[2]

Some of us who have spent many years working with and studying farms and farmers have learned to use two methods of measuring the practicability of certain practices in the organization and operation of the farm business. The first method is to divide a large number of similar farms into two groups, one of which follows the practice, the practicability of which it is desired to measure, and another group which is similar in every respect except that it does not follow that practice. The second method is to study the extent to which the practice is followed on farms that are most successfully operated as compared with the extent to which it is followed on the least successful farms. If the first method indicates that those who follow the given practice get better results than those who do not follow it, and the second shows that the more successful farmers follow the practice to a greater extent than do the less successful farmers, then it is usually safe to recommend the practice.

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[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

[2] "A Comparison of Outlook Statements with Subsequent Events"; O. V. Wells, mimeograph publication, Bureau of Agricultural Economics, United States Department of Agriculture, January 24, 1930.
"A Review of the Accuracy and Timeliness of Outlook Statements"; C. O. Youngsbrow, Circular No. 62, Department of Agricultural Economics, University of Idaho, December, 1932.

In order to get an answer to our question, I applied both methods to farms in north central Illinois. Early in October a letter was mailed to each of about four hundred seventy-five cooperators in the Illinois Farm Bureau Farm Management Service. This is a service in which cooperating farmers pay fees of from fifteen to thirty dollars per farm per year to provide for a part of the cost of a farm analysis and advisory service directed by a fieldman who devotes his time to about two hundred farms. The letter asked seven questions as follows:

1. How many years during the past ten have you attended the annual district outlook meetings where the agricultural outlook has been discussed?
2. Have you been getting the annual outlook reports published by the Agricultural Extension Service?
3. Have you been receiving the monthly Illinois Farm Economics?
4. On what other sources have you depended for information regarding the outlook for future prices of farm products? Under this question, the questionnaire named five sources of information, namely, publications of the United States Department of Agriculture, livestock marketing and grain marketing organizations, farm papers, radio, and personal contacts with farm advisors, fieldmen and others.
5. Have you been guided in any of your plans for crop and livestock production by any of these outlook or forecasting agencies?
6. If your answer to Question 5 is "Yes," give an illustration from your own experience.
7. Do you believe that it is practical to plan farm operations on agricultural forecasts? Please give reason for your answer to this question.

About two hundred twenty-five replies were received. As was to be expected, the tendency was for more of the answers to come from the more progressive and successful farmers. Fifty-two per cent of the two-fifths of the cooperators whose farms had been most profitably operated in 1935 replied, while only thirty-four per cent of the two-fifths of the cooperators whose farms had been least profitably operated sent in answers.

Earnings of Farms that Used Outlook

In order to measure the relative earning power of farms on which outlook and forecast information was and was not used, farms on which 1935 records were kept were divided into two groups: *first,* those whose operators had attended several outlook meetings and had read both the annual and monthly outlook reports; and *second,* those whose operators had not attended any outlook meetings and had not read either the annual or monthly outlook reports. (Table 1)

Table 1—Farm Earnings of Those Who Did and of Those Who Did Not Attend Several Outlook Meetings and Notice the Annual Outlook Reports and the Monthly Illinois Farm Economics

Group of Cooperators	Number of replies	Average net farm income	Average price index	Average livestock index
Those who have attended several annual outlook meetings and have noticed the annual and monthly outlook report	44	$3850	100	104
Those who have not attended any annual outlook meetings and have not noticed the annual and monthly outlook reports	13	3208	95	98
Difference		$ 642	5	6

The forty-four cooperators who had been attending outlook meetings and studying outlook reports had average net incomes of $3850 per farm in 1935, when such incomes were adjusted to the average capital invested in all record keeping farms. The thirteen cooperators who had not attended outlook meetings or read outlook reports had net incomes of only $3208, or $642 less per farm than the other group. That is, those who followed outlook information had twenty per cent higher average net incomes than those who did not follow it.

One hundred thirty-three cooperators who stated that they had been guided by outlook and forecasting agencies and gave illustrations of such guidance, had average net farm incomes of $3850 per farm in 1935; while twenty-eight cooperators who stated that they had not been guided by forecasts, or were uncertain about it, had average net incomes of only $3204 or $646 per farm less. (See Table 2)

Table 2—Farm Earnings of Those Who Have Been Guided by Agricultural Forecasts and of Those Who Have Not Been So Guided

Group of Cooperators	Number of replies	Average net farm income	Average price index	Average livestock index
Those who stated that they had been guided in farming operations by forecasts	133	$3850	100	105
Those who stated that they had not been guided by forecasts or were uncertain in their answers	28	3204	94	98
Difference		$ 646	6	7

In the study of the Illinois farm records, a price index is used which indicates the relative average prices received for all major products sold. This shows that those who indicated that they were guided by outlook and forecast reports, as an average, received about five to six per cent higher prices for the products which they sold than did those who made no use of available reports. The livestock index, which indicates the relative returns

for feed fed to all livestock, weighted as to the kind and amount of each kind of livestock, showed about seven per cent better returns for the feed fed on the farms that followed outlook information.

The results of the study indicate, then, that those farmers who are accustomed to study and use of outlook information did have about $640, or about twenty per cent, higher net incomes in 1935 than did those farmers who do not study or use outlook or forecast information.

Most of the Best Farmers Use Outlook

Two studies were made of the relative values placed on outlook information by cooperators whose farm records showed them to be relatively good or relatively poor farm managers. In the first study two groups of answers were made. One group of ninety-two answers was from men whose farms were among the most profitable two fifths of the farms on which records were secured in 1935. Sixty-nine, or seventy-six per cent, of these more successful farmers stated that they had been guided by outlook information and believed it practical to plan farm operations on agricultural forecasts.

The second group of fifty-five answers was from cooperators whose farms were among the least profitable two-fifths of the farms keeping records. Only thirty-four, or sixty-one per cent of these less successful farmers as compared with the seventy-six per cent of the better farmers, stated that they had been guided by outlook information and believed in the practical value of its use.

In the second study made of the relative values placed on outlook information by cooperators whose farm records showed them to be relatively good or relatively poor farm managers, the replies of twenty cooperators who from year to year are recognized as among the most successful farmers were compared with the replies of twenty who are recognized as among the least successful. Eighteen, or ninety per cent, of the twenty most successful cooperators indicated that they had been guided by outlook information and that they believed it is practical to plan farm operations on agricultural forecasts. On the other hand, only eleven, or fifty-five per cent of the twenty less-successful farmers gave an affirmative answer to both questions.

The two successful farmers who questioned the value of planning farm operations on agricultural forecasts operate rather highly specialized pork producing farms. One of them said, "I

read the forecasts published by various public and private organizations but do not depend much on them because I believe that a regular farm program will serve better than an in and out one." The second one said, "To a certain extent I believe in them but no organization or person can forecast agricultural prices and hit it all the time. So, read them all and make your own decision." I know both men personally and am of the opinion that both are guided more or less by outlook information which they admit they read.

These studies show, then, that those who use outlook information and price forecasts made their farms pay about twenty per cent greater net incomes than those who did not use them and do not believe in their use. The studies show, too, that a much larger proportion of the more successful than of the less successful farmers use outlook and price forecast information and believe in its practical value. These facts point to the conclusion that it is practical for the farmers who will study them carefully, to plan or at least to adjust, farm operations according to agricultural forecasts.

Illustrations of the Successful Use of Forecasts

A study of the illustrations from their own experiences given by the men who stated that they had been guided by outlook or forecasting agencies is of interest. Hog and beef cattle headed the list of enterprises on which cooperators wrote they had been helped by outlook information.

One successful pork producer wrote, "From information at outlook meetings and outlook report of 1934, we so planned our hog operations of 1935 that it was the most profitable of nearly twenty years."

A large-scale cattle feeder wrote, "In feeding cattle if it is at all possible, I follow their suggestions and I find them 70 to 80 per cent correct."

Many other similar illustrations were given. Five per cent of those sending answers stated that they had been guided in crop production by the outlook information regarding probable chinch bug damage. One such said, "On recommendation of our fieldman, we substituted soybeans for small grain due to the prevalence of chinch bugs in 1934. This turned out very good from a financial standpoint." Another said, "When the forecast was that chinch bugs would be bad, we quit raising barley and raised beans and the bugs were so bad no barley was harvested."

A summary of illustrations of definite help given by outlook

information and forecasts included 42 illustrations for hogs, 42 for beef cattle, 27 for crop production or time of selling grain, 11 for avoiding chinch bugs, 5 for sheep, 3 for dairy products, 2 for poultry, 10 for general livestock, and 17 for general farm production. The replies were distributed among the different enterprises about in the same proportion that the farm income is distributed in the area in which the farms are located.

Sources of Outlook Information

In answer to the question, "On what sources, other than the annual outlook meetings and reports, have you depended for information regarding the outlook for future prices of farm products?" the following replies were given.

200, or 90% of all, named farm papers.

182, or 82%, named livestock marketing or grain marketing organizations. In giving personal experiences several named one nationally know cooperative livestock marketing association.

177, or 80%, named personal contacts with farm advisers, fieldmen, and others.

165, or 74%, named the radio.

151, or 68%, named publications of the United States Department of Agriculture. While the publications of the United States Department of Agriculture were indicated as the least popular source of outlook information, our farmer friends did not overlook the fact that they are a major source of information for the agencies on which they do depend for such information.

Farmers' Attitude Toward Practicability of Forecasts

While, as has been pointed out, the majority of thinking Illinois farmers believe that it is practical to plan farm operations on agricultural forecasts, they are inclined to place definite limitations on the extent to which they should rely on such forecasts. Many of the reasons given for the answer to the question indicated that such limitations exist.

Many stated that they believe that plans can be made on forecasts safely, if the forecasts are made by an unbiased agency like the United States Department of Agriculture or the state experiment stations. Some typical replies follow:

"Because it is compiled by men working for the government and they are not interested in the speculative end."

One of the best of Illinois farmers says, "Yes, because the folks that make the agricultural forecast can get more information about livestock and crops than a farmer can, and, too, that is

their job. Each individual farmer could not get the desired information."

Another good farmer says, "The research carried on by the universities and the United States Department of Agriculture is quite helpful in planning future operations by the light of past experiences. They are the only agencies to my knowledge that can give an unbiased opinion, and the forecasts are correct by quite a large percentage."

Many mentioned the difficulties of forecasting because of uncertain weather conditions. It is, of course, to be expected that this difficulty would be named at the end of the second of the two worst drought years in history which have occurred.

One said, "Agricultural forecasts, although subject to error as to climatic conditions greatly lessen the possibility of hit and miss markets."

Another thinking farmer says, "Because results indicate they have a certain value under normal climatic conditions."

One writes, "Barring abnormal weather and war conditions, I believe that it is practical."

Several recognized that forecasts cannot be exact but do show trends and are useful guides.

A few of the best farmers stated that they believed in planning according to forecasts, but they believed that more is gained by selecting some definite plan and sticking to it.

Only a few made the objection that if all followed forecasts any value that might be obtained would be neutralized.

Examples of Benefits from Producing According to Normal Seasonal Price Trends

Early outlook reports stressed the normal seasonal variations in prices of certain products due to normal seasonal variations in supplies of and demand for the products. Two studies of records of farms in the Farm Bureau Farm Management Service illustrate how farmers have profited by producing in accordance with such normal seasonal variations.

Hog enterprise records of farms producing 10,000 pounds or more of pork per year for the years of 1930, 1931, and 1932, were divided into groups according to the per cent which the weight of pork on the farm at inventory time, which was January 1, was of the total weight of sales of pork during the year. The three-year average returns for all hogs produced on farms that had only 20 per cent to 40 per cent of the year's sales on hand January 1, was $132 for each $100 worth of feed fed, while the returns on the farms that had 80 to 100 per cent of the year's sales on

hand January 1 was only $103 for each $100 worth of feed. The first group sold all spring pigs during the fall while prices are usually good and had a nice profit above all costs of producing the pork. The second group carried the spring pigs over and sold them during the winter months when prices are usually low, at a definite loss when all costs of producing pork are considered. Part of the advantage for the first group was due to more economical gains for fall marketed hogs, but more than one half of the advantage was traceable to the better selling price. (Table 3)

TABLE 3—PER CENT OF WEIGHT OF SALES OF HOGS DURING THE YEAR THAT WERE ON HAND THE FIRST OF THE YEAR AS RELATED TO RETURNS PER $100 FEED FED TO HOGS AND OTHER FACTORS (Based on the average of three trials for the years 1930, 1931, and 1932 on farms in north-central Illinois.)

Per cent of sales for year on hand January 1	No. of records	Per cent of sales on hand Jan. 1	Lbs. feed per 100 lbs. pork	Feed cost per 100 lbs. pork	Returns per 100 lbs. pork	Returns per $100 feed
0.0 to 19.9	4	17.8	399	$3.84	$5.03	$133
20.0 to 39.9	93	32.9	414	3.95	5.16	132
40.0 to 59.9	130	49.7	434	4.10	4.97	122
60.0 to 79.9	72	67.6	450	4.16	4.85	117
80.0 to 99.9	21	85.6	480	4.39	4.60	103
100.0 or more	10	114.7	490	4.38	4.35	94

Another commonly noted seasonal advantage was in the price of eggs produced during the fall and winter as compared with the price during the spring and summer. As an average of records on Farm Bureau Farm Management Service farms, during the three years of 1933, 1934, and 1935, it was found that farms that produced 20 per cent or more of the year's eggs during October, November, and December received 21.9 cents per dozen for all eggs sold during the year and produced them at a feed cost of 15.1 cents per dozen. However, farms that produced less than 10 per cent of the year's eggs during those months received an average of only 17.6 cents per dozen for all eggs sold and produced them at a feed cost of 12.7 cents per dozen. This shows a price advantage for all eggs sold during the year of 4.3 cents per dozen at an average increase in feed cost of only 2.4 cents per dozen.

TABLE 4—RELATION OF TIME OF PRODUCING EGGS TO PRICE RECEIVED AND OTHER FACTORS (Based on three trials during the years of 1933, 1934, and 1935 on farms in north-central Illinois.)

Per cent of eggs produced during October, November and December	Number of records	Average price per dozen of all eggs sold	Average feed cost per dozen[1]	Average number of hens per farm	Average number of eggs per hen
None to 9.9%	90	17.6¢	12.7¢	111	99
10.0% to 19.9%	78	18.9¢	14.3¢	130	117
20.0% or more	45	21.9¢	15.1¢	155	135
All farms	213	19.5¢	14.1¢	127	115

[1] All feed fed to poultry charged to egg production.

Attitude of Farm Management Extension Workers

At the same time last fall that I wrote to our farmers asking them about their attiudes towards forecasts, I wrote to a few farm management extension men whose work brings them into intimate contact with farmers in corn belt states, asking their opinions on the subject. I am deeply indebted to them for their fine response and careful replies. If I were to have used their replies as a basis of my study of the question, the conclusions would have been practically the same as those that I drew from the replies of our farmer friends and from my own observations during many years of intimate study of farmers, farm practices and farm records.

I am particularly indebted to H. A. Berg of Michigan State College who sent to me a very complete summary of the replies of Michigan farm account keepers to a similar questionnaire sent out four years ago. The replies to that questionnaire were quite similar to those that I received to the one sent out a few weeks ago. Mr. Berg made a report of the Michigan study during the national outlook conference in Washington early in 1933.

"It Still Pays to Farm Well"[3]

It still pays to farm well. While the majority of the best farmers, when answering the questionnaire, stated that they do make profitable use of agricultural forecasts, many of them emphasized the much greater dependence on a well-developed plan of crop and livestock production carried out consistently without much change from year to year.

While the most successful livestock farmers do adjust their breeding operations so as to put economically produced livestock or livestock products on the most opportune seasonal markets, and do feed meat animals to lighter or heavier weights with slow or fast gains depending on the seasonal outlook, most of them place far more dependence for profitable farm operation on a carefully chosen long-time plan of livestock production.

In like manner, while the better farmers do adjust the acreage of certain crops from year to year, especially in accord with probable insect infestations, the best of them invariably insist on the value of following definite cropping systems. They recognize that a well-planned cropping and field arrangement are very important in that they affect the maintenance of soil fertility, the control of soil erosion, the control of certain weeds, insects,

[3] Title of Circular 458, Agricultural Experiment Station, University of Illinois, an address delivered by H. W. Mumford, at Farm and Home Week, Universities of Kentucky, Missouri, Illinois, and Wisconsin, 1935 and 1936.

and plant diseases, the production of balanced rations for livestock, the sanitary production of livestock, the economical use of labor and of power and machinery, and the cost of fencing.

Some of our best farmer friends cautioned us against an overenthusiasm about the value of agricultural forecasting. They called our attention to the fact that the average individual farmer has much more to gain from the adoption of the best known farm organization and operation practices that lead to production efficiency, than he has from an attempt to adjust his production from year to year to changing economic conditions.

Summary

The following observations are made in summary:

1. While most of the more successful farmers follow well chosen plans of crop and livestock production without much change from year to year, most of the more successful of them make adjustments in the amounts of products produced for sale and the time of selling such products, basing the adjustments on various items of outlook information.

2. There is an increasing appreciation on the part of thinking farmers in regard to the value of outlook information and agricultural forecasts as they help in the planning of farming operations.

3. Since the individual farmer must bear the consequences of decisions as to what to produce on his farm and when to buy and sell, he should make such decisions himself.

4. While many farmers like to have the opinions of one in whom they have confidence about when to buy and sell or when to increase or decrease production, replies to the letter indicate that they really prefer to learn all possible facts bearing on a particular question and then to make their own decisions.

5. Advance information regarding probable outbreaks of insects destructive to fruits, vegetables, and field crops given in time for them to shift their spraying or planting dates or to make changes in the crops to be grown is particularly appreciated by, and useful to, alert farmers.

6. A majority of farmers say that outlook information is essential to the most profitable planning of any commercial type of farming. They say also that it is impossible for individual farmers to have access to many types of information that are available to those who may give their time to looking for and studying such information.

7. Thinking farmers are most interested in such outlook in-

formation and forecasts as are made by unbiased public employees and look to the United States Department of Agriculture and the state experiment stations for such information.

8. Many farmers depend on farm papers, and publications of farmers' cooperative marketing associations, and their radio announcements as the mediums through which they get such outlook information and agricultural forecasts. The editors of all such publications have very definite responsibilities in seeing that published information is not biased by political preference, advertising, or editorial policy or the inclination to favor any commodity or section of the country at the expense of other commodities or sections.

9. Since thinking commercial farmers, to an increasing extent, are being guided in their farming operations by outlook information and agricultural forecasts originating with the United States Department of Agriculture and the state experiment stations, it seems that it is particularly important that the preparation of published statements be very carefully supervised by men with thorough training, effective experience, and natural ability to bring all possible influences into the statements in an unbiased manner.

Discussion by W. E. Grimes

Kansas State College

Professor Mosher has given an excellent picture of the use of agricultural forecasts in planning farm operations in Illinois. In his paper particular stress has been placed on the attitudes of farmers toward the use of agricultural outlook information. The accounts of farmers who are cooperating in farm account service work supply detailed information concerning the extent to which these farmers act in conformity with the outlook. If Professor Mosher had expanded that portion of his paper dealing with the analysis of the accounts of such farmers it would have been distinctly interesting. Such accounts record the extent to which the actions of the farmer were in keeping with the outlook and then give the results in terms of income. Such records show whether the conduct of the business was in keeping with the outlook either because the farmer deliberately planned to conform to the outlook or, by chance, his farm operations agreed with the outlook. In either case the results tell clearly whether it pays to use outlook information in planning farm operations.

The Kansas Extension Service has been working with two groups of farmers in farm management associations for a number of years. Fieldmen visit the cooperators four or five times a year. On the occasion of each visit the fieldman makes suggestions for the improvement of the business. Many of these suggestions are based on outlook material as the fieldman judges that it applies to that farm business. In addition to making the suggestions, the fieldman records the suggestions made in his notebook and also in the account book kept by the farmer. When he calls on that

farmer again he checks up on the suggestions and records whether the farmer carried out the recommendations. Over a period of years, these cooperating farmers have carried out 80 to 90 per cent of all recommendations made by the fieldman. In one association in 1935, 121 recommendations were made concerning the time of marketing hogs. The farmers adopted 115 or 95 per cent of these recommendations. In the same association in the same year, 72 suggestions were made concerning the marketing of cattle. Sixty-three, or 93 per cent of these recommendations, were adopted by the farmers.

It has been the experience of the people working with these groups in Kansas that a high percentage of the changes suggested are accepted and acted upon by the farmers. These farmers pay for this service and are sufficiently satisfied that they continue in the associations year after year. This would seem to indicate that it pays to use outlook information in planning farm operations on these farms.

The records of these farmers have been analyzed to determine the effects upon net income resulting from the use of outlook information. The following table shows the relation of the time of sale to the gross receipts per dollar invested in hogs and to the net farm income of cooperating farmers in Kansas in 1931, 1932, and 1933. These farmers were in one of the farm management service associations and they had been encouraged to have their hogs on the market in March or July, August or September and thus avoid the seasonal low markets for hogs.

THE RELATION OF TIME OF SALE TO THE GROSS RECEIPTS PER DOLLAR INVESTED IN HOGS AND TO NET FARM INCOME FOR THE YEARS 1931, 1932, AND 1933
(Data from the Southern Kansas Farm Management Association records.)

Per cent of sales in March, July, August or September	Number of farm records	Average per cent of sales in these months	Gross hog receipts	Receipts per dollar invested in hogs	Net farm income
0 to 25	143	6	$245.89	$1.34	$297
26 to 50	75	38	448.73	1.72	335
51 to 75	60	62	452.75	1.89	461
76 to 100	49	90	339.27	2.23	244
All records	327	36	334.36	1.66	328

These and other data concerning the application of outlook information to the planning of farm operations in Kansas indicate that it pays to use such information when conditions are similar to those prevailing since 1930.

The subject under discussion could have been considered from the standpoint of the factors that have entered into the agricultural situation in recent years which serve to modify the application of outlook material to particular farms. For example the adjustment programs have, at times, tended to run counter to the outlook program as applied to certain farms. The records available should reveal the extent to which this occurred. Also there is the interesting question raised by one of the farmers quoted by Mosher which is whether the same plan followed year after year is better than a plan that is shifted from year to year as shifts seem advisable on the basis of the outlook. In time the information now being secured should permit the definite answering of this question.

CANADIAN AGRICULTURAL POLICY—SOME SELECTED LESSONS[1]

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Jevons once said "The capacity of seeing the sameness and difference of things . . . if history and . . . experienced men are to be believed, is a valuable kind of power." Perhaps we are too close in time to pass intelligent judgment on our recent experiences and many of us may have lost the capacity and power of dispassionate appraisal because of our direct or indirect connection with what has been attempted. But inasmuch as agricultural policy, in almost all western countries, has become, and is a dynamic force, contemporary analysis must be made if experience is to count for anything.

If we mean by agricultural policy the formation of forward looking plans for the conservation and sound development of our soil resources, and the creation of a balanced national life in the interest of society as a whole then I have nothing to discuss because we, in Canada, have not been much concerned with such a programme. We have been so busy exploiting our resources, building railroads for a hoped-for population of twenty millions of people, and in other ways erecting an immense overburden of steel and concrete, that our collective thinking on national policy has now become a mingled expression of despair concerning our inability to pay our public debts, and hope that the "good old days" will somehow return without much effort on the part of anyone.

Specific objectives of agricultural policy are concerned chiefly with tariffs, exports, domestic marketing, debt adjustment, farm relief and land utilization. "Selected lessons" in this paper are limited to a discussion of wheat policy and domestic marketing. Some aspects of farm relief and general tariff policy cannot, however, be ignored.

Wheat has been and is the dominating commodity in agricultural policy. It is the life blood of business for the Prairie Provinces, and the pulse rate of export trade for the nation as a whole. Since 1928, every crop has been below normal in average yields per acre; large areas have had a succession of complete failures and prices have fallen to unprecedented levels for Canada. Poli-

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

cies were invoked which could not or would not have been attempted with average crop conditions.

My task, then, consists of an appraisal of things done in an emergency and I will not be concerned so much with technique as with broad expressions of economic motives which may reveal the direction of dynamic forces.

Agricultural policy at any time, in any country, is the resultant of three forces. First is the human resource organized into pressure groups concerned largely with class interests. Second are the relatively fixed physical resources which both restrain and impel private and public policy. Third is the general economic condition of the country which exists at the time the policy is invoked. That is to say, agricultural policy is affected by the nation's international trading position, and the strength or weakness of its currency.

Dealing with these in reverse order it is of course apparent that the critical position of trade balances and currencies in industrial Europe in the early years of the depression provoked policies which brought great disturbances to international trade. As a major exporter to these markets, Canada was affected to a marked degree. On top of this, monetary policy in Argentina and Australia weakened our trading position. We did our best to cling to gold and so in a spurious fashion to the detriment of our export industries but with some advantage to our budgetary position.

The second factor, physical resources, exercised a potent force in Canadian policy. Increased gold production was a source of great strength while the inability of our agricultural set-up to adjust itself to violent changes in market conditions was, and is, a problem of great magnitude.

As for the first factor, we would say that, generally speaking, two viewpoints struggle for supremacy in Canada with respect to agricultural policy. One is that a return to prosperity awaits the disappearance of all sorts of controls, both governmental and private. It is argued that Wheat Pools and Governments, in attempting to regulate supply and by controlling marketing agencies, have made conditions worse by destroying the free functioning of the competitive system. Hope for the farmer is to be found only in lower costs of production and wider markets. The opposite view is that for our major products, wheat for example, international demand is permanently reduced, and until adjustments in world production and exports are made, regulation of supply and governmental regulation of marketing must be invoked. This definite category cannot be too rigidly used in classi-

fying group forces, but in general, it appears that the present government, plus a large following in eastern Canada and urban people of the middle and upper income group in general support the first view. The organized farmers lean heavily toward collectivist principles, and seem to have become tired of the shibboleths of free competition.

Wheat Policy

For the past four or five years, agricultural policy in Canada has been chiefly concerned with the wheat problem. A succession of World Wheat Conferences and finally an International Wheat Agreement placed this commodity to the forefront in national policy and supplied even superficial readers of the daily press with the general facts of the question.

Canada did not initiate the agreement; indeed there was a good deal of reluctance on the part of Ottawa, in the early stages, to have anything to do with the idea. Several considerations, however, caused Canada to participate rather vigorously in later developments. One reason was that the Government had been engaged since 1930 in an attempt to stabilize domestic wheat prices by means of purchases and sales of wheat on government account. By the middle of the crop year 1932-33, it was apparent from the evidence of the level of wheat prices, decreasing international trade in wheat and rising carry-overs at home, that Canada was not getting anywhere in attempting to solve a world problem by her efforts alone. There was also a feeling that our competitors were passive recipients of the benefits of Canadian policy. The hopes were so strong that Argentina would regulate supplies and continental importers reduce wheat duties, that an attempt to realize such hopes could not be ignored.[2]

This was not all that influenced us. Wheat Producers' Organizations believed that wheat prices, both domestic and international, could not be influenced very much as long as the open market was the dominating force in determining prices. They assumed that an international agreement could not become effective unless Government Wheat Boards controlled the markets and marketing in exporting countries. They further believed that acreage reduction in Canada could not be accomplished by voluntary or bonus measures but only by a single selling agency which would issue something in the nature of domestic allotments to wheat growers.

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[2] In the fall of 1932 the Government of Argentina asked the Preparatory Committee of the "World Economic Conference, London, 1933," to place the subject of "International Wheat Agreements" on the Agenda.

Two strong forces then, were lined up behind the agreement, namely, the Government and the Wheat Pools; both convinced from their experiences in wheat marketing that temporary overproduction was real, that more or less permanent over-expansion of acreage threatened, and that regulation of supply and marketing control was the only immediate way out.

A majority of the Grain Trade, and the Liberal opposition in Parliament were opposed in principle to the agreement.[3] They argued that there was not and could not be overproduction in wheat. Diminishing international trade in wheat, they claimed, was the result of (a) government interference in the private grain trade and, (b) uneconomic expansion of wheat acreage in Industrial Europe. This was the policy of the Liberal Party in opposition; it is now their policy in power. The Government is at present almost out of the wheat business. How much progress we will make by reciprocal trade agreements in reducing wheat acreage and increasing demand in the United Kingdom and wheat importing Europe, remains to be seen.

As we look back on the "International Wheat Agreement" without attempting to pass judgment on the philosophy implied therein of regulation of supply, it is apparent that it failed to function for the simple reason that the controls were not operative. Those responsible for the Agreement believed that the main task was to agree on quotas, in principle and amounts, and leave domestic enforcement to the countries concerned. The United States had a domestic policy worked out in all details and perhaps it was expedient that an international agreement should support their own measures. Whatever the reasons, urgency, compromise, or politics, this method of procedure doomed the agreement. Canada had no method of reducing acreage or controlling exports and I am fairly certain that no official device was ever conceived. The advent of a big crop might have precipitated action, but as we had only poor or indifferent harvests during the life of the agreement, methods of control were quietly disregarded.

If, and when, international agreement is again attempted or promoted for the purpose of reducing acreage or regulating supply, adequate objective measures must be drawn up before any Conference is called. If producers do not see the need for reduction of acreage and agree on a workable plan, the most perfect plan that politicians and experts may devise will have little chance of success.

[3] The present Government at least tolerates some form of international cooperation in wheat policy by continuing to give financial support to the advisory committee in London.

Perhaps, we have learned the following from our experience in handling the wheat problem:

1. It is an impossible task for one exporting country alone to influence greatly, by any means whatsoever, the basic level of wheat prices in international trade.

2. Our policy of price stabilization did result in higher prices being paid to domestic producers. How much of this added farm income came from the public treasury is not as yet known. At any rate a correct appraisal of the Bennett-McFarland wheat policy cannot be made unless it is realized that their early efforts were conceived as a measure of relief to wheat growers and the assumption of potential liabilities already incurred by pools, banks, and provincial governments. As these potential losses increased and the policy pursued resulted in the government holding almost all the carryover, it seemed practical and wise to make further purchases in the open market not only to protect the value of their own holdings but to maintain prices for farmers selling in the open market. Thus arose the so-called "speculative" wheat policy of the Bennett government.

3. There is a growing consciousness in Canada that a national policy based to a large extent on a foundation of wheat production and export is not very stable. The realities of cyclical and long time overproduction of wheat are becoming recognized. If the volume of international trade in wheat is permanently reduced to say, 550 million bushels, Canada is in for a bad time. If we have a surplus to market, say of 290 million bushels, our situation would be something like this. The United Kingdom might take 95 millions but not more than 100 millions. Oriental markets should provide an outlet for 15 millions and other countries 18 millions (largely in flour). This leaves approximately 160 million bushels to be sold to industrial Europe and herein lies the heart of our problem.

4. The evidence is fairly certain that a majority of the wheat producers of the Prairies are convinced that a Government Wheat Board must be a permanent part of our marketing machinery and it will be almost impossible for any government to deny the need for such a Board, if and when Canada produces a crop of around 450 million bushels and wheat prices start to slide. If we are going to have another Wheat Board, there are some things about which we had better make up our minds. The most important is: what do we mean by a minimum price? If the minimum price is fixed as a farm relief measure, a price which is somewhat similar to a minimum wage might be considered—but not by wheat growers. Perhaps wisdom and experience will de-

cide that the Board should operate as a government sponsored voluntary pool, in which case the minimum price should be considered as an initial payment. The determination of the amount of the initial payment will be a difficult political matter, but only sound economic considerations should and must prevail. There should be a definite upper limit beyond which the initial payment shall not go. As I view present and prospective wheat prices, this limit might properly be set at 90 cents Fort William. Some may argue that under certain market conditions such a price would not attract deliveries to the Board. Perhaps so. The Board should not, however, be conceived as an agency supplanting our present marketing machinery, but as a supplement and if farmers are not willing to support it for the purpose of obtaining the season's fair average price, with a stop-loss set at the minimum price, then the Board's usefulness is gone.

Before leaving Wheat Policy, may I enumerate briefly some questions to which the answers must be found, if our future policy is to be based on actualities.

1. Is the import demand for wheat in general, and hard spring wheat in particular, definitely reduced in Western Europe?
2. At the outside limit, by how much can bi-lateral or multi-lateral trade agreements expand Canadian wheat markets?
3. Is the dependence on wheat as the major source of income in the Prairie Provinces, and as one of the major exports for our nation, socially and economically desirable, and if not, what are the alternative uses to which our prairie land can be put?

Domestic Marketing Policy

I now pass from wheat policy, with its international implications to domestic marketing problems and plans.

The "Natural Products Marketing Act" passed and made operative in 1934, and declared "ultra vires" by the Supreme Court in June 1936, may be analysed from several viewpoints.[4]

Politically it was part of the so-called "New Deal" legislation of a government about to face a general election; a government which had strong protectionist beliefs and sought to extend such theories in practice to the conservation of the home market by means of regulatory marketing Boards. The present administration, then in opposition, attacked the Marketing Act on the grounds of unequivocal antagonism to anything which savored of paternalism, planning, or interference with free competition.

[4] For a description of purpose and powers of the legislation see, Hopper, W. C. "The Regulation of the Marketing of Fruits and Other Natural Products in Canada," J. F. E. May 1935. The decision of the Supreme Court and a note thereon is contained in the *Labour Gazette* July, 1936, Dept. of Labour, Ottawa, Canada.

Producers and Producers' Organizations that favored Marketing Boards did so for a diversity of reasons. In general the strongest and most effective support came from cooperative organizations, which had a successful record of performance both in membership and efficiency of operation, but whose efforts to provide better seasonal and territorial distribution had failed because of an uncontrolled minority of producers and product.

Unfortunately for the successful administration of the Act and the general cause of marketing regulation, there was a good deal of support engendered by the hope that arbitrary price-fixing was to be the goal. Impulsive resentment against middlemen was, of course, to the fore. There were also a few cooperative organizations, facing adversity, that attempted to promote a plan of marketing under the Board, which would virtually give their association a monopoly of the first-handling of the commodity concerned.

From our brief experience with Marketing Boards in Canada, certain facts stand out very clearly. Producers generally desire, and I think in the future will insist, on a greater control over the marketing of their own products with the purpose of removing as completely as possible the evils of indiscriminate price competition among middlemen, both private and cooperative, in the selling of the farmer's products.

We have learned to distinguish, from our own experience, and trial and error elsewhere, between two kinds of regulation. The first may be termed "permissive." Herein are set up regulatory boards which enforce fair trading practices for marketing agencies; consignment shipping is controlled or prohibited; volume is regulated by season, amount and quality; and in general measures are adopted to provide for the so-called orderly marketing which competition so often fails to produce.

The Board should not be solely representative of primary producers and should not interfere with the growers choice between using cooperative or private marketing agencies. Thus there will be competition in the marketing service and the most efficient operators will stay in business. The risks or losses, if any, of placing surplus products, particularly perishables, in by-product uses or export markets can be distributed over the industry; an advantage which alone vindicates regulation.

The most important aspect of permissive regulation is that no legitimate and necessary services or agencies are eliminated and if the scheme is not a success, control can be removed and the old orthodox system can function unimpaired.

The other kind of plan sets out to give complete control to an existing cooperative association or to a government board. Thanks to Government investigations, farmers know a good deal about monopolies, price agreements, trade associations and the like.[5] They are aware, as you and I are aware, that anti-combine legislation does not seem to have much effect in the long run. It is a short step then to believing that what is good for industry is good for agriculture, and the agitation for producer-controlled marketing monopolies is no longer a protest of distress, it is a widely accepted dogma of reform. The dangers to the agricultural industry of monopoly control by producers is not widely appreciated. If producers are permitted by law to vote themselves into a monopoly marketing plan they may be fairly certain of either of two results. First, they are in it for all time; or second, one major marketing disaster will ruin the whole marketing set-up. A legalized producer-monopoly must function within our existing concept and frame-work of a democratic society. Some may argue that if a vote is taken and, shall we say, 60% of the producers are in favor of the scheme, then the tenets of democracy have not been violated. But this is not the point. The essence of democracy is that a minority must be permitted, from time to time, to give legitimate expression of dissent. In government this allows us to change our policies or policy-makers every four or five years, if we so desire. It should be observed, however, that we are not usually permitted to vote every so often as to whether or not vital services, such as telephones, transportation, Central Bank, and public utilities generally should be turned back to private ownership. The reason of course is that it would be economic suicide to do so. Now the question is, can we build up a producer-controlled-monopoly and make an issue of it at every election? And further, if the private middleman is once driven out of the field, will he be very eager to invest his capital and talents if at any future date the vagaries and caprices of public opinion decide on another experiment at monopoly control.

What I am attempting to show is this: that if it is necessary to improve on our present marketing machinery we must learn to distinguish between plans which propose to discipline our marketing machinery by controls and those that involve compulsions which destroy the present system. In the first instance, if our plans fail, we can change our minds and no great harm will ensue;

[5] Agrarian philosophy in Canada was greatly influenced by the findings of "The Royal Commission on Price Spreads." The report is published by the Kings Printer, Ottawa. 284.3, C 164 R. 1935.

in the latter case the choice may be a final one, for an alternative marketing method is gone or can only be restored at great cost.

There is, of course, a large section of our people which does not believe in either compulsion or regulation but I believe that the majority of producers are definitely in favor of some sort of marketing regulation to supplement their cooperative efforts in physical handling. Some of the plans of this kind under the Marketing Act were an undoubted success and their discontinuance, since the decision of the Supreme Court, is only temporary inasmuch as the legal barrier raised by that decision can and will be broken down by new legislation which is based indisputably on provincial concurrence.

If, and when, such plans are revised there are some lessons which I trust we have learned. The idea has been too prevalent that a plan which has been successful with some commodity, somewhere else, can be applied to any commodity anywhere else. If the commodity is highly perishable, milk for example, control has a good chance of succeeding. The reason of course is that the milk producer is a weak seller; storage is impossible and alternative markets are practically non-existent. Under such circumstances the market is usually in a delicate state of equilibrium and slight disturbances often cause complete collapse. We may generalize by saying that the more perishable the commodity and the more meagre the provisions for finance and storage, the greater the need for control and the greater the chances for successful regulation.

If the producing area is relatively small as in the case with British Columbia and Nova Scotia apples or Ontario tobacco, the easier it is to operate control successfully. Fluid milk lent itself to control in Canada because of peculiar local market conditions and I may say in passing that our experience has shown that the less the Federal Government has to do with advising or supervising marketing plans with such commodities, the better it is for all concerned.

A plan was devised for livestock marketing in the Prairie Provinces. It failed largely because of the peculiarities of the men the plan set out to serve. The rancher considered himself a different kind of a human animal to the so-called mixed farmer and refused to be coralled into control, while many of those who produced livestock as a minor enterprise to grain growing showed no interest at all.

We should have learned all these lessons from our experiences in cooperative marketing ten or twelve years ago. This may be

too much to expect for as some one has said, "Experience is the comb the Almighty gives to bald-headed men."

In general I would say that the major weakness of our recent marketing policy was that the enabling legislation set up no adequate criteria by which either the necessity for or the adequacy of marketing plans could be determined. Those in charge of administering the act realized this weakness fairly early and attempted to rectify the situation by making rather broad investigations before each application was finally considered. The damage had been done, however, because the publicity given to the bill in parliamentary stages had encouraged producers to prepare all sorts of hastily conceived plans which could be justified on legal grounds but which glaringly ignored the most elementary concepts of sound marketing theory and practice. The Act also included emergency powers for the Federal Government, powers which should have been taken under other legislation. The Federal Government could do almost anything in respect to natural products if they considered an emergency existed. In brief the Marketing Act as drafted was bad legislation but it was rather well administered.

The case for a Wheat Board having complete control of the marketing machinery is based on two arguments. First; because of changes in harvesting technique an increasingly large proportion of the crop is thrown on the market early in the crop year. This practice is said to bring about such a weight of hedging pressure on the market that prices break and the producer does not receive the reward which more orderly marketing would provide. Second; regulations, control and government monopolies exist in all major exporting and importing areas and Canada is forced to adopt similar means in self defense.

The first argument needs statistical proof, which I cannot deal with here; the facts of the second are self evident, but the implications of embarking on such a policy are not so clear. Consider for a minute the determination of wheat prices under a monopolistic Wheat Board. The open-market price may have many weaknesses, but it at least registers innumerable impacts of demand and supply in an impersonal way. If a Board consisting of three men is to determine prices from day to day, they must still rely on quotations from Chicago, Liverpool, and Buenos Aires to provide a target to shoot at and the number of times Canada hits the bull's eye will depend on the collective aim of three men and their willingness to pull the trigger. Add to this the political "hunches" which will bear on marketing policies and

the chances for success are further weakened. It is clear in any case that elimination of the open market in Winnipeg would not eliminate such trading elsewhere, nor do away with our own need for such price barometers.

It seems to me that progress towards the solution of our wheat marketing problem in Canada will not be made until the organized groups concerned become less adamant in their viewpoints. The organized grain trade must give up some of their ideas respecting the sanctities and perfections of the present system. If they have nothing to conceal they need not fear supervision by a government grain futures administration, nor do I think they should be too antagonistic towards a Wheat Board which operates what might be termed a "voluntary pool." They would be much worse off with something more drastic. As for the organized producers, they have under their own control one of the most efficient and profitable elevator systems in existence. They endanger losing public sympathy and the intelligent loyalty of their members when they lead the van in agrarian philosophies which center about "prices fixed at the cost of production" and "the elimination of parasitical middlemen." Economists who give utterance to a belief in a middle course will be considered as "in the camp of the Philistines" by both groups. Nevertheless, a straight forward approach by an equidistant road of impartiality is the only one that provides a view of the whole field of events and their probable developments.

The foregoing appraisal of Canadian Policy has definite faults and limitations. The distortions that come from too close a view in time and place will be recognized and the bias that is a residue of my administrative connections with policy should be realized. I hope the day will come when Canada may boast of at least one organization similar to Brookings or the Stanford Food Research Institute, where dispassionate research into, and appraisal of, agricultural policy can be made. Without such an Institute, I am afraid that "selected lessons" from agricultural policy in Canada will continue to be only half forgotten incidents of failure, and agricultural policy itself largely concerned with the farmer as a voter and not in terms of just one industry that must fit into an economy that is rapidly becoming diversified and industrialized, and into a society full of rigidities and hidden controls.

BRITISH AGRICULTURAL POLICY—SOME SELECTED LESSONS[1]

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In 1931 the British Government decided for the first time in almost a century to do something about agriculture. Among the numerous possible approaches were the following: (1) to subsidize agriculture indirectly by means of a protective tariff; (2) to subsidize agriculture directly by bounties or price guaranties; and (3) to attack individual commodity situations through a system of compulsory cooperation.

The British Government decided to attack the problem along all three lines but with special emphasis on individual commodity schemes.

This paper will not deal with the tariff approach, since it is of minor significance in British farm aid, being more important as a necessary adjunct to the Empire preference policy.

The direct subsidy programs will be dealt with very briefly. The principal ones apply to wheat, sugar, and beef cattle. By far the most important is that relating to wheat. In this case the British Government guarantees a certain price per hundredweight to British producers; that is, the difference between the actual price obtained by producers in the open market and the guaranteed price is made up in the form of deficiency payments by the government from funds obtained through taxes on flour delivered for consumption in the United Kingdom, whether from imported or domestic sources. The subsidy is limited to total sales of 50,400,000 bushels of millable wheat. Producers are free to expand acreage but, if total sales of millable wheat exceed the specified limit, the government's contribution per bushel is correspondingly reduced. This has actually occurred in each of the last three years. In the present year the increase in the world price of wheat has resulted in a reduction in the deficiency payments.

Encouraged by this subsidy arrangement, the wheat acreage of England and Scotland has increased since the scheme's inauguration from a total of 1,250,000 acres in 1931 to 1,800,000 acres in 1936. This means that Great Britain now has an acreage that will supply, in years of average yields, at least one fourth of its requirements, as compared with about one eighth before the sub-

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

sidy was put in effect. It does not seem likely, however, that the British wheat acreage will be further significantly expanded unless the government agrees to guarantee prices on a larger quantity of wheat.

In the case of the sugar subsidy, which was inaugurated as early as 1925, it is significant that the British Government, upon revising the scheme in 1936, decided to introduce a limitation on the quantity which would benefit from the subsidy. The beef subsidy plan is now in the process of revision and will not be dealt with here.

We may turn now to an examination of certain of the marketing schemes, namely those relating to hops, potatoes, bacon hogs, and milk, which have been inaugurated under the authority of the British Agricultural Marketing Acts of 1931 and 1933.

The marketing scheme for hops was inaugurated in July 1932. In this case the growers were faced with the necessity of selling their product, the supply of which fluctuated greatly from year to year as a result of weather conditions, to strongly organized buyers who could, to a large extent, dictate prices. The result was that there were tremendous fluctuations in growers' prices from year to year and even in the course of individual seasons.

The marketing scheme provided a means for cooperative marketing on a compulsory basis. But it goes further than merely requiring growers to sell through a central marketing board. It prohibits any expansion in the acreage of hop fields thus providing a monopoly in the hands of growers who were in the business in 1931.

There can be little doubt that the scheme has been successful in its primary objective, that is, to improve the bargaining position of hops producers. In fact, the last revision of the scheme provides that brewers shall pay £9 per cwt. for domestic hops through the marketing season of 1939. In the five years 1927-31 preceding the adoption of the marketing scheme they received on the average only approximately £8½ and in 1930 less than £5. At the same time, while relatively high prices have been assured to hops producers, there has been no measurable injury to consumers for the reason that the price brewers have to pay for hops is a negligible consideration in the final price of beer. Incidentally, the operation of the hops scheme has been reenforced by a limitation on imports of hops in the form of an agreement by brewers not to import more than 15 per cent of the total requirements.

A potato scheme was inaugurated in 1934. In the case of pota-

toes the position prior to the marketing scheme was that the production in Great Britain, on the average, sufficed for domestic requirements. But due to yield fluctuations there were great changes from year to year in domestic production and consequently in prices to growers. In years of relatively high yields many more potatoes were produced than the market could absorb at prices remunerative to growers.

The potato marketing scheme attempts to solve this problem by assuring that no more domestic potatoes will be placed on the market than the estimated domestic requirements. This is accomplished primarily through the elimination from the total supply of the smaller sizes, which are then used for purposes other than consumption as food. The size of the potatoes eliminated is changed from time to time during each season and from season to season. Moreover, the scheme is reenforced by allotting each producer a certain acreage upon which he may produce only certain specified types of potatoes. Fines are assessed against producers growing more than their allotted acreage. Potato imports are subject to license.

By this means the Potato Marketing Board has succeeded in leveling out to a considerable extent the fluctuations in prices of potatoes from season to season. But the acreage devoted to potatoes in the United Kingdom has declined and there seems to have been a reduction in direct human consumption of potatoes. Moreover, considerable opposition to the scheme has developed on the part of dealer and consumer interests.

The Potato Marketing Board conducted an experiment in early 1935 in selling potatoes at a cut-rate price to the unemployed. This experiment suggested definitely that the per capita consumption of potatoes in England among the low-income classes responds strongly to a substantial reduction in price even when existing retail prices are unusually low. This fact perhaps gives us some clue to the dissatisfaction with the potato marketing scheme as a whole. At any rate, it is clear that the Potato Marketing Board has a tremendous responsibility in reconciling the interests of producers and consumers in the establishment of figures representing the estimated domestic requirements.

A marketing scheme for bacon pigs was inaugurated in July 1933. The situation here was that the domestic producers were supplying more than enough pork to satisfy British requirements for fresh pork, the market for which is protected by a sanitary embargo on imports, but not enough to satisfy the total British requirements for fresh and cured pork together. In the period

immediately prior to the inauguration of the marketing scheme imports of cured pork had been increasing rapidly at very low prices and these imports were having a depressing influence on prices of domestic pigs.

Apparently the fundamental objectives of the pig scheme were: to protect domestic pig producers as a whole from the price depressing influence of large imports of cured pork, to increase pig numbers in Great Britain, and at the same time to make it possible for a larger percentage of the domestic pigs to be used for cured pork. In other words, domestic pig producers were to be given first claim on the cured pork market in addition to the monopoly they already had on the fresh pork market. To accomplish this result quota restrictions were placed on imports of cured pork from foreign countries and a system of contracts between pig producers and curers through marketing boards was established. The curers are required to pay a definite fixed price which is estimated to give a small profit to producers over the actual cost of production.

From the standpoint of increasing total pig numbers the scheme has been successful. When it was put into operation in 1933 the total numbers amounted to about 3½ million. By June 1936 the number had risen to over 4½ million. This is an increase of approximately 30 per cent. During the same period total imports of cured pork were reduced over 40 per cent.

But the scheme has not been an unqualified success. For one thing the number of pigs contracted for curing by producers has been disappointingly small. In fact, it has been necessary in some instances for the Marketing Board to permit curers to buy outside of the terms of the contracts with producers and at prices higher than called for in the contracts. One of the reasons for the shortage in contracted pigs is to be found in the fact that producers have frequently found it more profitable to sell their pigs in the unrestricted fresh pork market. In other words, the scheme has not been successful, at least to the extent hoped for, in increasing the supply of bacon-type pigs.[2]

Perhaps the principal reason for the shortcomings of the scheme is to be found in the very real difficulty of organizing the British pig industry on a basis that will enable it to produce a sufficient quantity of high quality bacon type animals. It is perhaps too much to expect that this could be accomplished in the

[2] Since this paper was prepared the system of contracting to deliver hogs for curing has broken down. An announcement of December 19, 1936, stated that, in view of the failure of 1937 contracts to come up to expectations, all contracts for this year were void. Cured pork import quotas continue in force.

relatively short space of three years but there are fundamental production difficulties that obviously have not been overcome.

Another reason for the lack of success in this scheme is to be found in the resistance of consumers to high prices for cured pork. It has been found, for instance, that when prices of cured pork at wholesale are more than about 90 shillings per cwt., consumers tend to shift to other meats or other food supplies; but prices less than 90 shillings per cwt. under present methods and costs of production are apparently not particularly attractive to British producers.

A milk scheme was inaugurated late in 1933. At that time British dairymen were producing considerably more milk than was needed for consumption in the United Kingdom in fluid milk form but not nearly enough for consumption in both fluid and manufactured form. Imports of butter and cheese were increasing rapidly at very low prices. These large imports had driven down prices of the so-called surplus milk going into manufactured products and this, in turn, tended to depress the prices received for fluid milk. In this situation the dairymen in the surplus regions where most of the milk was manufactured and where costs of production were lowest suffered more than the dairymen who, being located near the large centers of population such as London, had a preferential outlet for their fluid milk.

Under these conditions the primary objective of the milk marketing scheme was to level out the returns to dairymen who were producing primarily for the fluid milk market, as compared with those who were producing for the manufactured milk market, without at the same time depressing the price received for fluid milk.

The solution of the problem was approached in terms of a marketing board empowered to regulate the marketing of all milk produced in England and Wales. There was a separate but coordinate scheme for Scotland. With certain limited exceptions, producers are required to sell their milk on the basis of prices negotiated by the Milk Marketing Board with the milk distributors. They sell this milk direct to buyers but the returns are sent through the Marketing Board and distributed pro rata to producers.

With respect to milk sold for the manufacture of cheese and butter, the price is based on a formula related to the prices of imported cheese and butter. In this connection, the British Government, beginning in April 1934, has guaranteed 5 pence or 6 pence per gallon, depending on the season, for milk used in manu-

facture. Up to June 15, 1936, this guarantee had cost the government the equivalent of about 17 million dollars.

Another objective in view at the time of the scheme's inauguration was an increase in the direct human consumption of milk in the fluid state. As one approach to this objective, the government has granted a direct subsidy totaling approximately 5 million dollars for the purpose of making fluid milk available to school children at reduced prices. As a result there has been an expansion in consumption of milk by scool children but this increase has apparently not raised significantly the total British fluid milk consumption.

It is important to note that the milk marketing scheme provides for no production control. The Board stands ready to pay the fixed price on any quantity of milk produced in England and Wales. Furthermore, it should be noted that restrictions have not been imposed on imports other than the prevailing rather moderate duties on foreign, but not Empire, cheese and butter.

The outstanding result of the marketing scheme has been to cause a marked increase in sales from the lower cost surplus regions where the milk continues to go chiefly into manufactured products. For instance, total sales of milk by the Marketing Board during the year ending June 30, 1936, amounted to 1,020,000,000 Imperial gallons compared with 845,000,000 during 1933-34, the first year of the plan's operation. This is an increase of 21 per cent. But when we look at individual regions we find that in the so-called far west section of England, comprising the counties of Cornwall and Devon, sales have increased 68 per cent, while in the southeast section, or the part adjacent to London, sales increased only 12 per cent. The main reason for the expansion in the surplus regions is, of course, the fact that they are the regions of lowest cost. A contributing factor has been the fact that without any definitely coordinated marketing scheme for beef cattle, an alternative enterprise, producers in such sections have found it more profitable to increase milk production.

With respect to consumption of fluid milk, except for the relatively small increase due to direct governmental subsidy on milk for school children, there appears to have been practically no change. In other words, the additional supply of milk which has been forthcoming as a direct result of the operation of the scheme has had to be absorbed in the manufactured milk market in the face of continued strong competition from imports of butter and cheese and at increasing cost to the British Government.

Thus the Marketing Board is faced with a dilemma. If it con-

tinues to maintain prices to producers, as it seems determined to do, there will probably be no increase in consumption unless it is possible to force a reduction in distributing costs. There is, in fact, reason to doubt whether any conceivable reduction in distributing costs would decrease prices to consumers sufficiently to encourage an appreciable expansion in the consumption of fluid milk. One thing seems fairly certain, the scheme is headed for disaster unless some means of restricting production is adopted or unless there is a severe restriction on the imports of butter and cheese. The British experience with milk does not bear out Professor Grant's statement that perishable products such as milk are most adaptable to control.

In the preceding paragraphs an attempt has been made to give in very brief outline some of the salient features of the more important British agricultural programs. In conclusion a few general observations with respect to British farm aid will be presented.

First of all, with respect to direct subsidies, the British experience with wheat would seem to indicate that it is perfectly feasible to improve materially the income of the producers of a particular crop by direct subsidy without causing any significant injury to consumers. But the situations in which this is likely to be true may be confined to a relatively few crops where domestic production represents a small part of domestic requirements and where consumer demand is relatively inelastic. It is believed, however, of primary importance that a definite limit be placed on the amount of subsidized production and that the government be prepared to maintain such limitation. The difficulties experienced with the sugar subsidy program illustrate the need for limiting the subsidy to a fixed quantity.

One of the most interesting aspects of the British marketing schemes is to be found in the great variety of conditions of supply and demand which have been encountered in the development of the individual commodity schemes and the equal variety of methods that have been adopted to meet these conditions. It has been shown that the schemes have met with varying degrees of success looked at from the standpoint of the original objectives. It would appear that this variation can be accounted for largely in the difference in the inherent difficulties concerning the marketing of individual commodities. The hops scheme has, no doubt, been the most successful and here the problems have been the simplest. The milk scheme may perhaps be considered the least successful and here the problems were doubtless most complicated.

Now for a few specific lessons that the experience with these schemes would seem to teach. First of all, it appears clear that the general principle of compulsory cooperative marketing, which is the fundamental basis of the program, must be supplemented by rather direct control over production and that there must also be, if the schemes are to operate successfully, some rather definite control over imports.

If the conditions of control over production and imports are fulfilled, the British experience seems to show that the marketing scheme procedure can successfully smooth out extreme fluctuations in prices to producers.

At the same time, the British experience would seem to demonstrate that production efficiency is not assured by the marketing scheme approach. A good example is found in the case of the pig scheme, where production technique, from the standpoint of supplying a particular class of product to which consumers are accustomed, has not been greatly advanced. Furthermore, the operations of some of the schemes show quite clearly that there is a real danger that producer interests, which dominate the marketing boards, will not consider sufficiently the interests of consumers in the setting of prices or in establishing market supply. In fact, it may be found, with further experience, that some commodities now under marketing schemes, such as potatoes, are not adaptable to this procedure.

The commodities which appear to be most difficult to deal with seem to be those that enter directly into human consumption and those for which consumer demand is relatively elastic.

In general, however, it is clear that the British Government has approached the problem of farm aid in a realistic way. Its methods have been flexible and adaptable to individual commodity situations. While recognizing shortcomings in certain of the marketing schemes, it may be doubted whether any other general kind of approach to farm aid would have achieved as much in the way of increasing returns to producers. It also may be doubted whether another approach would have resulted in less injury to the interests of consumers.

Discussion by H. G. L. Strange

Searle Grain Company, Winnipeg

Canadian Agricultural Policy: Dr. Grant in his excellent paper has drawn a clear picture of the agricultural situation that has existed in Western Canada since the depression. He shows that poor crops and low prices seriously reduced the farmers' standard of living, causing them to

act in their suffering and despair much in the same manner than farmers of all ages and in many countries have acted under similar conditions that usually occur after great wars, namely, to strike out at the merchants who handle and market agricultural products. I believe Dr. Grant would agree that the high cost of the things that farmers buy has increased the dissatisfaction.

The time afforded will permit dealing with only what might be termed the "fundamental issues."

Definite questions, suggested at least by inference, I conceive to be:

(1) Should the marketing of wheat in Western Canada be performed by a Wheat Board, or should it be left in the hands of merchants functioning through the open market system, and—

(2) Would it be of advantage to the wheat producers of Canada for there to be set up an international wheat committee which should have some control over marketing.

Attention is drawn to one outstanding statement "That it is an impossible task for one exporting country alone to influence greatly by any means whatsoever the basic level of wheat prices in international trade."

These words confirm a somewhat similar statement made by the Senate Committee, which investigated the activities, and operations of the U.S.A. Federal Farm Board as follows:[1]

"It can now be seen that stabilization activities were foredoomed to failure; .... The Board set up its stabilization program in response to urgent public demand and acted, when it did proceed, on assurance from respected advisors, that there was no alternative to price-pegging and no strong likelihood of its failure."

There were in Canada, just as in the United States, when these plans were proposed, however, some persons at least who forecasted that failure would result, but unfortunately they were merely voices crying in the wilderness, for in Canada, as in the United States, large sections of the public had been urged by certain agricultural leaders to demand that the policies should be put into effect.

Had the farmers and the public in Canada, and perhaps in the United States, known before the experiment started what the few knew then, and what we all know now, I for one believe that the plans would never have been started and that there never would have been set up Wheat Pools, Wheat Boards, nor stabilizing operations and that we should not, therefore, at this time be suffering from the consequences of loss to the producers, from the impaired credit of the Provincial Governments, and the guarantees given by the Dominion Government, and from some money loss already taken by the tax payers, nor should we be suffering from the passions, prejudices and hatreds that were aroused by these plans and policies and which it will probably take a generation to dampen.

Incidentally I find that large numbers of farmers and of the public generally in Western Canada still believe today, as they were taught to believe in the past, that a Wheat Pool, or a Wheat Board, or some other single agency, can definitely influence the basic level of wheat prices on international markets; and I think that it is this firm belief most carefully fostered by certain persons, that is creating the demand among that group

[1] Senate Report 1456, page 4, Aug. 23, 1925.

which Dr. Grant terms "The organized farmers" (which form about 50% of the Western producers) for Wheat Boards and other marketing schemes.

Such people, it seems to me, are interested in so-called orderly marketing, equalization of prices, Compulsory Pools, or in Wheat Boards, as a means of reflecting to the producers a higher price for wheat than the international open market would return, or, as it is sometimes put, to guarantee a high minimum, regardless of market levels.

Can a Wheat Board, or any other agency, return a higher price to the farmer? Dr. Grant suggests in his paper that higher prices were perhaps returned to the farmers by the policy of price stabilization.

This suggestion, it seems to me, is open to question. It is agreed that the foreign buyer was obliged to pay from ten to twenty cents a bushel more for Canadian wheat than its competitive value seemed to warrant, but this, as we all know, tended to build up a large, unsold surplus in Canada, and it is contended by some that this surplus in the bins of one country, visible to the whole world, measured, weighed, graded, and the results made public every week, was a very great weight on the market, and resulted in depressing the world price to a lower level than it otherwise would have fallen.

I feel also that because the surplus and wheat marketing in general became a political issue that the steady stream of propaganda about world overproduction, and alleged permanent wheat surplus, which the Government was obliged to issue, to justify its accumulated surplus, or its withholding of wheat, in itself contributed to make buyers indifferent, hence induced them to bid lower prices than otherwise they might have done.

Dr. Grant tells us that a lesson learned is that a Wheat Board, or similar agency, cannot affect the world's price. Agreed. I am willing to go further than this and say that no Wheat Board, however made up, or any other agency, could ever, in my own opinion, sell wheat to the same advantage as could a large number of merchants functioning through the open market system. My reasoning is as follows:—A Wheat Board, of course, instantly becomes a political issue. It is pressed by producers to pay a higher price. Its decisions are influenced by an unconscious desire on the part of the members of the board to be successful, not to go down in history as men who made a great loss. In addition it has pressure brought to bear upon it by the dominion treasurer, who urges the board continually not to make too great a loss. I contend that these forces must result in any board finally tending to withhold wheat for a higher price "To see if tomorrow's price would not be higher." This is just what occurred in the past, and, I contend, that this again would lead to a building up of a surplus and a loss from carrying charges, which, in the end, leads to a breaking down of domestic and international price from the very weight of the surplus itself.

The virtue of the open market, on the other hand, is that it is not in politics, it is quite indifferent to pressure from producers for a high price and from buyers and consumers for a low price. It has but one object, which is to sell wheat at the going price, which is the result of the bargainings between large numbers of buyers and sellers. No merchants have the money, nor could they borrow the money to assume the risks of storing large amounts of wheat for a possible future rise. Poor judgment on the part of the merchant is paid for by himself, therefore he is alert at all

times, and the combined judgment of untold numbers of merchants buying and selling sets a price. With a small group on a board, on the contrary, individual judgment must control, and individual judgment, as we all know, is apt to err badly.

A fundamental weakness of boards, and of all collectivist plans and planning, as I see it, is that they can only plan for what is known at the moment, for what is actually being practiced. This tends to a stabilization of methods and practices, as well as to the proposed, but hardly ever achieved, stabilization of price, which in turn, of course, retards progress, and brings a definite lag in the adoption of new ideas and new methods, hence in lost opportunities to sell.

Boards at all times are subject to strong political pressure, which in turn means the substitution of popular demand as a marketing method for economic wisdom.

There are some, however, who are pressing for a Wheat Board, feeling that even though the Board could not affect the international basic wheat price, that it might, by political pressure and popular demand, be forced to set a high minimum price that would equal the cost of production and should the market fall below the minimum price that the loss would be taken by the tax payers, whereas should the Board make a profit that it would be passed back to the producers.

Many consider that such a Board cannot be set up in Canada, because the bulk of the tax payers live in the East where the mass of political votes is found and therefore political pressure from Eastern Canada will not permit the present government at all events, to run the risk in the future of losses in marketing wheat.

My own experience inclines me to the belief that if the farmers of Western Canada, and the public today, knew that a Wheat Board could not affect the basic price on international markets, and that the government was unwilling to incur the risk of loss, that the demands for such a Board would at once cease, excepting, of course, by certain farm leaders who never cease attempting to foster prejudice and dissension.

Could an international wheat committee do anything for producers? The paper uses the words "That the (last) agreement failed to function for the simple reason that the controls were not operative." Agreed—but I suggest in this connection that such control seldom, if ever, has operated in the world's history, with similar plans, and, I fear, never will operate. Machiavelli in his "Prince" indicates to us I believe why such plans cannot work—in short that no government for long will continue to abide by any treaty or agreement when it becomes apparent that the keeping of the agreement would adversely affect the interests of its people. An examination of the many broken treaties and solemn contracts made by governments, including those classed as the most highly civilized, since the start of the depression, will I suggest, confirm this. The trouble with a wheat agreement, as I see it, is that those who sign the agreements are not the ones who produce, buy and sell, or consume the wheat, and those who do produce, or market, or consume the wheat, are not the ones who sign the agreements, and that neither group, as a rule, has much understanding of, nor control over, the other.

It is significant to note that the international wheat agreement was

broken by almost every country which signed almost while the ink was still wet on the document. Importing countries permitted their acreage to be increased and definitely took measures to increase production which they had solemnly promised they would not do. Exporting countries failed to decrease their acreage as promised, and the Argentine, without a thought blandly exceeded her quota as soon as the interests of her farmers demanded it. For my part I feel that there is not the slightest hope that any international committee can bring a higher price to producers than the conditions of supply and demand warrant.

Regarding Dr. Grant's three particular questions. My own answers would be as follows:—

(1) I see no reason to think that the import demand for wheat in general, and Hard Red Spring Wheat in particular, is definitely reduced in Western Europe. The gradual, even though slow, increase in population taking place is creating more mouths. Increased employment should increase per capita consumption; and increased purchasing power, as it comes about in Europe, will, I believe, tend to change over many acres now in wheat in Europe to coarse grains, clovers and grasses, for the purpose of producing animal products which we have been recently told, the poor nutrition of the people in Europe demands. All this would create, of course, greater demands for export wheat.

(2) Trade agreements, particularly the reduction of tariffs, and the removal of restrictions against international trade, which are taking place should increase the flow of goods, commodities and services between countries and with this the flow of wheat. The one group being in the long run, of course, the ultimate form of payment for the other.

(3) Many will agree that it is neither socially nor economically desirable that wheat shall be the major source of income in the Prairie Provinces, but I, for one, can see no possible alternative to which the twenty-four million acres now in wheat can be profitably put, at all events for many years to come.

If these criticisms and comments are valid it would seem that the real hope for the Western Canadian farmer would be to increase the quality of his wheat and to urge governments to assist him in lowering his costs of production so that he will be able to compete with wheat offered for export from any other country, at a profit to himself. This being done, for my part, I have no fear but that Western Canada will be able to sell on the markets of the world the 160 million bushels of wheat to industrial Europe mentioned as necessary by Dr. Grant, but only if experienced merchants are permitted to handle and market grain through the medium of the facilities afforded by the open market, and that their operations will not be interfered with unduly by governments.

I find myself entirely in agreement with two other important suggestions made by Dr. Grant,—one is that before marketing schemes for any product are put into effect that the probability of their success or failure, and the necessity for their existence, should be thoroughly examined in advance, something which unfortunately has not been done in the past.

The other is that we badly need in Canada an organization similar to the Brookings or the Stanford Food Research Institute, an organization that can find the probable truth, and will dare to tell it, for today most unfortunately in Canada, there are few, if any, individuals, and I believe

no institutions, which dare to tell all the truth about important matters in times of emotional stress, the reason being, of course, that it is not pleasant to commit political or economic suicide.

During this depression we seem to have had ample proof of the truth of a statement made by Dr. Mackay, in his book entitled "Memoirs of Extraordinary Popular Delusions and the Madness of Crowds" published in 1892, as follows: "Men, it has been well said, think in herds, it will be seen that they go mad in herds, while they only recover their senses slowly, and one by one."

We need in Canada an institution that will retain its economic sanity while the masses suffer from this madness; and furthermore that will explain to the sufferers how mad they are and will point out the true economic way.

British Agricultural Policy: Mr. Wheeler has compressed into small space a great deal of interesting information. He sets out for us the plans and schemes put into force in 1931 by the British Government and shows us how they have fared to date, noting something of the successes and disappointments that have attended the various schemes. The specific lessons suggested by the speaker as having been learned are of importance.

For perhaps very good reasons Mr. Wheeler does not touch upon the fundamental reason why the British Government decided suddenly for the first time in a century to do something for agriculture. Personally I am inclined to question that the real reason was simply to better the lot of the farmers and to promote the general principle of cooperative marketing.

Those who were in Europe during the War, and who from time to time made visits to England, cannot fail to remember vividly the intense fear that existed about the possibility of Great Britain losing the War simply through lack of food supplies, which situation was almost brought about because of the large number of supply ships sunk by enemy submarines. One heard in those days, on all sides, the statement that "In the future this country must grow more of its foodstuffs." For my own part I believe that this perhaps is the real motive underlying the new British Agricultural policy, and that the final objective of the plans is really to increase the production of foodstuffs in Great Britain, and that the providing of higher returns to farmers is quite a secondary matter excepting that, of course, higher prices tend to enlarge production.

Those who during the War observed the reduced ration of bread, and the greatly reduced ration of such things as milk, butter, cheese, eggs, meat and other livestock products permitted to civilian people, and who noted the hardships and sufferings, which were the consequences of the restrictions, will hardly be willing to quarrel much with the desire of the British Government to lessen the possibility of such difficulties and risks and suffering in the event of future war. It is, of course, self-evident that the putting into effect of a profitable price for agricultural products will quickly increase production, and this end appears from the paper read to have been achieved to some extent with certain products, at least with wheat, but there seems to be some doubt as to whether the plans have increased, or ever can increase, the production of such important products as potatoes and bacon-type pigs.

It seems to be clear, too, from the address, that at least wheat growers have received a higher price, but questionable whether milk producers have

done as well. Those who happened to be growing hops at the time the scheme was put into effect seem to have benefited, but this crop is a splendid illustration, it seems to me, of the price that usually has to be paid for the control of production. Under this control no new growers are permitted to engage in hop production, and, apparently, no increase in acreage by present growers is permitted. All this means, in the long run, that there can be no incentive for producers to put forth any effort to reduce costs of production, hence to make the product cheaper to the people, all of which seems to be entirely contrary to all we understand about making progress in the way of raising the standard of living to the mass of the people.

On the whole, then, it seems questionable whether the amount of time, effort and tax payers' money which have been put into the schemes, have been justified considering the relatively small increase that has resulted in domestic food production, or considering the small additional advantage that has accrued to some producers.

Any one who keeps in touch with the letters written to agricultural papers in Great Britain cannot help but be aware that all British farmers are not agreed upon the value of the schemes. Many of them, it seems evident, resent acutely the regimentation which is part of some of the plans. They resent penalties and fines for defaults on contracts for the pig and bacon and potato schemes, and as well they resent the multitudinous and detailed forms they are obliged to fill in. The Pig Board, incidentally, has recently suggested that the penalties for nonobservance of contracts will be made even more drastic in the future.

I find it difficult to agree with one suggestion made by the speaker, which is that it is possible to pay higher prices to producers under the schemes without causing any significant injury to consumers. (I realize, of course, that much depends upon the definition of the word "significant.") I suggest that this contention, if carried to its logical conclusion, could hardly be sustained. If it is correct to say this regarding hops or wheat, for instance, because they form only a very small part of the cost of the finished product, then, of course, it must be equally correct to say it about any other ingredient which goes into the finished product, in which case, by adding them all up together, one might be in the position actually of having to say that a raise in price of all the ingredients of a product would not affect the final price, which of course, would be absurd. Even though, however, hops may form only, let us say, 5 per cent of the cost of beer, and even though the extra cost, under the scheme, of the hops might be as little as, let us say, one hundred thousand dollars a year, still it is one hundred thousand dollars more in the end that beer drinkers will have to pay, which means either that they will consume that quantity in value less of beer, or that they will purchase that value less of some other commodity, or their standard of living has been reduced by that amount. Much the same argument applies to wheat and bread, but it is, of course much more apparent when one deals with milk and potatoes, products where the price to the producer forms an important part, instead of only a small part, of the final price charged to the public.

Mr. Wheeler has shown us how the experiment indicated that a decrease in price with potatoes did actually enlarge consumption. The paper here, no doubt, refers to the controlled experiment in the distribution of potatoes

at Bishop Auckland, County Durham, which was to determine whether the consumption of potatoes would increase with lower prices.

Looking at the schemes objectively, some will perhaps wonder if it has all been worthwhile, even though some producers have been slightly benefited and home production slightly increased. Those who have lived in Great Britain can bear witness to the truth of the findings of Sir John Orr, Dr. Leitch, and others who have told us that at least 50 per cent of the population in Great Britain are suffering from malnutrition from the lack of sufficient food, particularly of such foodstuffs as milk, eggs, butter, cheese, meat, vegetables and fruits. One cannot help but feel that the slight benefit to producers, who are comparatively few in number, which has occurred, must have made it at least slightly more difficult, and not easier, for the poor people who are in the majority to obtain the necessary foodstuffs they so urgently require.

Considering the relatively small percentage of the foodstuffs now produced, and perhaps that ever will be produced in Great Britain, in comparison with its needs, and considering the money that it has cost the British tax payers for the administration of the various schemes, and for the bonuses paid, one wonders whether more good would not have been done had a direct bonus been paid to producers. This at least would not have raised prices to the consumer.

It seems to me that with such an important industrial country as England that in the long run, as it ever has been in the past, it will be the consumers—the industrial workers' interests—that will be taken most seriously into account by the government.

I believe that another price has been paid for the schemes which is not mentioned in the address, that is in the decrease in the exports, hence in the production, of certain British goods and commodities, and in a decrease in employment in these industries which manufacture such commodities as cotton goods, woollen goods, iron, coal and other manufactured articles. It seems to me certain that as the production of wheat, hops, pigs, bacon and cheese increases in England faster than population increases, that considerably less of these foodstuffs will be imported, and that, in consequence, it will naturally follow that less British industrial goods will probably be exported.

This leads one to the conclusion that the first results of the plans and schemes really have been, not very much more than, a redistribution of employment in Great Britain itself, that the prosperity of farmers and employment on farms may have been slightly increased, but only at the expense of industrial workers, particularly those in the northern parts of England, Scotland and Wales.

One is inclined to believe from the study of current literature in Great Britain that this very thought seems now to be disturbing the mind of the British Government, and perhaps the changing over of the Honorable Mr. Elliott, former Minister of Agriculture, who installed the schemes in the first place, to a different Cabinet position, may be the straw which shows the way the wind is blowing.

I think that all who are familiar with the highly individualistic character of the British people, and of British farmers in particular, will agree that if the Governments of the United States and Canada are reluctant about attempting to regiment farmers, and to regulate production by dis-

ciplinary measures that the Government of Great Britain would hesitate to an even greater extent, and would have much less chance of success if the plans were attempted.

I for one cannot help but feel that presently, as the depression lifts, the force of the political pressure of industrial labor in England will oblige the government to concern itself again, as ever in the past, with policies that will tend to increase employment in industry by increasing exports and that will make cheap food available to working families. This would mean, I think, that the British farmers once again will find it best, as they have done in the past, to devote their energies and land to the production of such high-quality livestock and livestock products as British farmers are supreme in raising, and in the past have found profitable.

The British Government will probably come to the conclusion eventually, though perhaps reluctantly, that they would be running no more risk in depending on an overseas supply of wheat and other foodstuffs in time of war than they would in being obliged to depend, as they would have to, upon overseas shipments of gasoline, lubricating oil, rubber, cotton, wool, nickel, and other similar products which are necessary to enable a war to be fought successfully.

In other words the British Government will probably decide to put their money into ships and military measures to keep protected their ocean food lanes, rather than attempt to produce larger quantities of foodstuffs in England, which larger amounts could not possibly assure self-sufficiency, but could only at the least increase the supplies available by a few weeks, perhaps even by only a few days, an almost negligible advantage when one considers the fact that the bulk of her foodstuffs would still have to come in from Overseas.

There is a question as to whether the continued dependence by farmers, British and others, on Governmental Bureaus, for the planning of their efforts, and for providing them with a satisfactory living, may not in the end impair their ability to readjust themselves to any changing economy that may come about, when the controls and the aids given by governments are withdrawn. Taking the long view, it seems, at least to this critic, that the true welfare of agriculture in Great Britain and in some other countries, will be advanced when the prosperity of industrial workers is increased, so that they will be able to purchase more and better food from farmers. This will come about, I for one believe, when a freer movement of goods, commodities, services, capital and people between the nations is permitted.

SOVIET AGRICULTURAL POLICY—SOME SELECTED LESSONS[1]

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In discussing Soviet agricultural policy we must at the outset face the fact that it does not fit into a conventional pattern. Historically, Russia is known as a surplus-producing country, and prior to the World War, she was a great exporting country for most agricultural products grown in a temperate zone. But even in those years the standard of living of her population was so low that one could hardly speak of true surpluses. Certainly during the last 20 years Soviet Russia has been suffering, not from agricultural over-production, as most of the capitalistic surplus-producing countries, but under-production.

The central objective of the Soviet Government, therefore, has been increased agricultural production, but on collectivist rather than on individualist lines. This largely explains the conflict of interests between a collectivist state and individualistically inclined peasantry which played so signal a role in Soviet agrarian history. Thus a definite political ideology as well as the desire for greater production motivated the agricultural policy of the Soviet state.

Ideologically, the Marxian doctrine embraced by the Bolsheviks of the superiority of large-scale methods of production in agriculture as well as in industry is of first importance. From this naturally followed the inevitable doom of the peasant as an independent producer in the course of the evolution of modern capitalistic society and hence the possibility of collectivism in agriculture. The old creed of the efficacy of large-scale methods of production in farming was reinforced during the last 20 years by an unusual enthusiasm for the tractor which fascinated Soviet leaders from Lenin down. Lenin, as early as 1919, toyed with what he called a "fantasy" of 100,000 tractors as a bait to attract peasants to Communism. The tractors, however, were not to be had in those years of revolution and civil war, but the peasants had to be appeased. Lenin realized early that the Russian peasant in his hunger for land would constitute a valuable political ally of the Bolsheviks. It was to win over the peasants that the Bolsheviks shelved for the time being their collectivist ideas and supported the agrarian revolution of 1917-18, which swept away

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

entirely the estates and even larger peasant properties and enthroned small peasant farming in Russian agricultural economy.

The good will era in the relations of Bolsheviks with the peasants, however, did not last long. The "bony hand of hunger" which was gripping Soviet Russia forced the Government in the summer of 1918 to adopt strong-arm measures in extracting grain from the peasants and a fierce class struggle began in the Russian countryside. Now the Marxist ideology, which had been held in a state of suspense, received full scope and a first attempt was made to introduce collectivism in Russian agriculture. But this step proved to be premature. The catastrophic decline of agricultural production as a result of forced requisitions and of the civil war, coupled with the growing peasant unrest, and paralysis of industry, led Lenin to execute a strategic retreat. The result was the famous New Economic Policy or "Nep," replacing the regime of War Communism. It meant, above all, the victory of small peasant farming which was liberated from state requisitions and prohibition of trade and which actually possessed, even if it did not legally own, the land.

Under the influence of the liberal "Nep" policy, Russian agriculture had made a great recovery as far as acreage, crop production and livestock numbers were concerned, approaching by 1927 the pre-war position. With the disappearance of larger farms, however, commercial production for the market, was still considerably below pre-war, in spite of increasing requirements due to the rapidly growing population. This largely proved the undoing of the "Nep" since the Government was launching an ambitious industrialization program requiring a greatly increased commercial production. But the very policy of fostering industry, with the emphasis placed on heavy industry manufacturing capital goods, tended in its primary stages to retard the growth of commercial production of small peasant agriculture and to make it more self-sufficient. For it was this policy that was largely responsible for the phenomenon of the so-called "scissors" or a disparity between agricultural and industrial prices unfavorable to agriculture and aggravated by a shortage of manufactured consumer's goods. The unfavorable effect on commercial production was accentuated by the increasingly hostile attitude of the Government towards the reappearance of more prosperous and economically stronger peasants, referred to as "Kulaki."

The whole agricultural situation became a topic of bitter factional controversy in the Bolshevist Party during the years 1925

to 1927 in which Trotsky, Zinoviev and Kamenev were pitted against Stalin, Bukharin and Rykov. It ended with the expulsion and exile of Trotsky and his followers and, ironically enough, a shift of the Soviet agrarian policy to the left in the direction pointed out by Trotsky. At the same time, grain supply difficulties which developed rather sharply during the winter of 1927-28 added impetus to the new orientation of agricultural policy. Its twin features were: (1) an offensive against the Kulaki; (2) a reorganization of agriculture on a socialist basis through the development of collective and state farms aided materially by the use of the tractor. In the words of Stalin, the production of collective and state farms was to replace "the capitalistic production of the Kulaki." But Soviet hopes went beyond this. It was believed that the output of collectivized and mechanized agriculture, working within the orbit of a "planned economy," would greatly exceed that of individual peasant farming.

Thus collectivism and individualism came again to close grips in the village. In this round collectivism won; but, it was compelled to make some concessions to individualism before it could gather the fruits of victory. I shall not dwell long on the history of the campaign or its cost. Its tempo was greatly accelerated in the winter of 1929-30 when the Government's objective became not merely to encircle the Kulaki but to do away with them by a frontal attack, known in history as the "liquidation of the Kulaki as a class."

The Kulaki, after all a small minority, were routed. The great mass of the peasants, with this example of the fate of economic individualism plainly set before them, were easily collectivized. Notwithstanding a setback which the collectivization drive suffered in the spring and summer of 1930, when the Government was forced to relax as a result of the increasing peasant unrest, more than 50 per cent of all peasant families joined collective farms by June 1931. Five years later 89 per cent of all peasant households or more than 18 million were united in less than 250,000 collective farms. Gone were 18 million independent small peasant farms, their numerous scattered strips replaced by large fields adopted for operation of modern machinery.

Side by side with collective farms there arose huge state farms. The distinction between collective and state farms is probably well known and requires merely brief mention. It suffices to say that while a collective farm theoretically is a sort of producers' cooperative and represents an aggregation of formerly independent peasant holdings, a state farm is a genuine public enterprise owned and operated by the Government like a factory. State and

collective farms were first organized during the period of War Communism, from 1918 to 1921, in what was left of the former estates, which was not much after the peasants were through with them. During the "Nep" period, 1921-1927, both state and collective farms played an insignificant role in Russian agricultural economy. In 1928, however, to overcome the grain crisis and to gain independence from the peasants in the matter of grain supply, the Government decided upon the organization of huge mechanized state grain farms, largely on the unbroken land of the semi-arid eastern and southeastern regions. It was realized that the climatic conditions in these regions were difficult, largely because of small and unstable precipitation and recurrent droughts. It was thought, however, that the large size of these grain factories, mechanization and specialization (largely in the growing of spring wheat) would make it possible to overcome these difficulties and produce large quantities of grain at a low cost. The huge size of these farms may be appreciated from the fact that most of them, at the beginning of 1931, had an area of 125,000 acres and more and a few exceeded 450,000 acres of land. Similar ventures into large-scale farm organization were made in other branches of agriculture, notably in animal husbandry.

Nothwithstanding a great deal of official optimism with which agricultural collectivization was viewed from the start, the new socialistic agriculture did not escape a crisis; though it was the opposite of the typical crisis of "over-production" as we know it in capitalistic countries. The new state farms suffered from unwieldiness due to huge size, excessive specialization, neglect of soil management, enormous turnover of labor caused by poor living conditions, inefficient utilization of tractors and combines, excessive bureaucratic centralization of management and red tape. Such a combination of adverse factors could hardly be expected to cope with the difficult climatic conditions previously mentioned. The outcome was poor yields of crops and excessive mortality of animals on these farms which were supposed to teach the Russian peasant the advantages of large-scale farming.

On collective farms the essence of the crisis was again poor organization and management; but, above all, lack of incentives on the part of the peasants to work. The promised abundant life in the collectives did not materialize in the early stage. The peasants, therefore, who did not join the collectives, as a prominent Soviet spokesman once said, "merely to please us Bolsheviks" could not help but feel disappointed with their lot. They shirked their duties and responsibilities and considered collectives as something foreign and not as a part and parcel of themselves.

As a high Soviet official (Molotov) complained early in 1933: "... The peasant having ceded his horse to the collective farm did not in all cases consider it his own, as well as that of the collective, and realize that he should take care of it just as when it was his private property."

Another factor contributing to the crisis was a shortage of draft power, caused by a slaughter of livestock on a vast scale by peasants who joined the collective farms or who were liquidated as Kulaki—a shortage which tractors could not offset in the early days of collectivization. The tractors, moreover, combined now in special central units, the so-called machine-tractor stations, were inefficiently utilized in the early days of mechanization, because of inexperienced drivers and mismanagement, with consequent frequent breakdowns and stoppages.

What proved especially trying, however, were the growing demands of the Government upon agriculture for grain and other farm products. And it cannot be denied that if Government procurements were to be made the sole test, collectivization was a huge success from the start. The grain procurements, for instance, were mounting regardless of the size of the crop and were in 1931 more than double those of 1928.

Crop area also increased both in 1930 and in 1931 and only in 1932 a decline of the grain acreage took place. But much of the acreage in those years was sown poorly and late, with insufficient seed and consequent detrimental effect on yields. Poor field work resulted in an abundant growth of weeds which has been causing no end of difficulty ever since. Finally, extremely inefficient harvesting with grain lying unbound in the fields for weeks—a prey to the elements—helped to decrease crops still further. Consequently, while acreage was not far off, and for a number of crops even exceeded the goal set by the first Five-Year Plan, the yields were far below the requirements of the Plan. Thus the lesson was being driven home that it is much easier to carry out acreage plans than plans of yields.

Food and fodder stringency, in the countryside in 1931 and 1932 as a result of poor crops and large procurements, aggravated the situation still further. A vicious circle, therefore, developed which the Government had to break if the whole structure of socialist agriculture were not to topple down. As far as the state farms were concerned, the Government learned its lesson. No longer was reliance placed on huge size and extreme specialization. Subdivision, with a view to achieving a more efficient size of the farm unit, mixed farming and "agrotechnika," or scientific farming, became the order of the day.

On the collective farms, force and hunger, particularly the serious famine which developed in the winter of 1932-33, did a large part of the job of breaking the peasants' resistance and of making them adopt a more cooperative attitude. The Soviet Government, however, did not rely solely on force, but tried to gain the support of the peasants by economic incentives as well—incentives which are ordinarily associated with a system of economic individualism. Thus, beginning with 1933 the requisitions into which Government procurements degenerated were replaced by a definite and specific tax in kind: so many quintals of grain per hectare of the area specified by the plan; so many kilograms of meat per animal, etc. Repeated levies, which had such a demoralizing effect, were prohibited. What remained after meeting the taxes, which in the beginning were quite high but later reduced, the peasants could call their own, and even sell on the local market, after the state quota for the whole region was fulfilled. Here was something resembling the "Nep" but on a much more limited scale, particularly since the private middleman continued to be taboo. More recently, a system of paying premiums for grain and other products delivered to the state in excess of the quota and graduated according to the quantity delivered was introduced to stimulate production.

In line with the same tendency is the insistence on differentiation of the reward for work in the collectives. Payment varied not only according to quantitative results but also according to quality of work and skill. All methods of more equal distribution in the collectives were banned as being too "petit bourgeois." A new inequality, therefore, based, to be sure not on the possession of land or capital but on unequal remuneration for labor, has been creeping into the Russian village. A combine operator may, for instance, earn as much as 5,000 rubles for a short season, while the average annual wage of a hired worker on a state farm or a machine-tractor station was a little over 1,500 rubles in 1935. But this method apparently has produced results. This is illustrated nowhere better than in the case of combines, which began to exceed their norms after this novel differentiated system of payment to operators was put into effect.

In the quest for increased economic efficiency, great concern has also been manifested during the last two years with the problems of cost and profitableness of the new socialist agricultural enterprises. This should gladden the hearts of the economic theorists who insist that the fundamental character of such concepts transcends any particular economic system.

Another concession to individualism, which theoretically has

always been inherent in the prevailing "artel" type of the collective farm, is that the peasants may do farming of their own, on a very modest scale, distinct from that of the collective farm. For this purpose they are supposed to retain a patch of land near the farmstead—a cow, a few pigs, sheep, and poultry. This "acre and a cow" policy was especially emphasized with the promulgation in 1935 of the new "Model Charter" or Constitution of the collective farm. The new Charter, moreover, provides that the tenure of the collectives in the land they occupy is to be permanent and a title deed to be issued to each collective farm after proper surveying operations. This the Government proceeded to carry out. Although all land still remains legally national property not subject to sale, nevertheless each collective is to become the "boss" of the land it occupies. Its area cannot be decreased, but only increased by additional allotment. Such allotment has been taking place recently at the expense of the state farms, some of which (apparently the smaller ones) are being liquidated entirely. Whether this step is an opening wedge in the disintegration of the whole state farm system is at present impossible to say. But it is symptomatic as additional evidence of the superior position in the present Soviet agricultural scheme of the peasant collectives over completely socialistic state farms.

It would be ill-founded to exaggerate the extent of the concessions made to individualism in the realm of Soviet agriculture; and not only because the hand that grants may also withdraw. Soviet Government occupies now more than merely a commanding position in Soviet agriculture. While it is true that land was allotted to collectives in perpetuity, nevertheless the Government owns and operates the continuously growing number of tractors and combines. The state plan rules agriculture more than ever and collectives must obey its dictates. It is significant, however, that such recovery as has undoubtedly been taking place in Soviet agriculture during the last three years,[2] seems to be associated with the dilution of the rather rigorous policy of collectivization by injecting a dose of individualism with a view to winning the whole-hearted cooperation of the Russian peasant. While, therefore, the proponents of collectivization may no doubt derive a great deal of satisfaction in contemplating the picture of present-day rural Russia, the individualist also can score some gains for his point of view.

[2] This subject is treated by the author in greater detail in an article entitled: "Recent Developments in Soviet Agriculture," published in Foreign Agriculture, Vol. I, No. 1, January, 1937. Issued monthly by the United States Department of Agriculture, Bureau of Agricultural Economics.

GERMAN AGRICULTURAL POLICY—SOME SELECTED LESSONS[1]

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The psychological atmosphere wherein recent German agricultural policy grew and found its shape is one of the utmost sympathy of the entire nation with its farm population and with the realm of agriculture. The traditional controversy of prewar times between producers' and consumers' interests, as well as the resentment of the consumer against the farmer—so widespread during the War and inflation time—have passed into oblivion. This new pro-farmer attitude has various roots. The experience of starvation under the war blockade is one of them. The retreat from pacifistic tendencies and from the desire to integrate Germany into international relations, along with the transition leading to a militant nationalistic power policy, with its emancipation from international cooperation, likewise threw its shadows on the nation's attitude toward agriculture. The loss of the political influence of labor during the last depression and the political influence of the urban middle-class, which has been growing ever since, led to the union of the latter with the farmer as a rural middle-class. These and many other tendencies—, e. g., racial doctrines—are responsible for an attitude of the German nation toward its agriculture which guarantees fair conditions for the farmer, even at the price of considerable sacrifices of other sectors of the economic system and of the consumer. This strong pro-farmer mentality must be kept in mind as the background for everything that is to be said.

I. Foreign Trade Policy

From 1919 until the stabilization of the currency late in 1923, and from then on until 1927, German agricultural policy may be summarized under the caption of reconstruction of the prewar productive capacity, with heavy investment based upon credit expansion and the reintroduction of moderate protective tariffs in 1925. The first part of this period is marked by the gradual abolition of the planned war economy and all those ties binding agriculture in the time of national emergency. Farmers fought most energetically for the restoration of a free competitive price

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

economy. During that first period of nine years the physical output of agriculture grew rapidly, yet at the same time imports of foreign grown food and feed rose to more than prewar level.

Decisive changes in principle took place from 1928 on when international grain prices began their slump and the disproportionality between agricultural costs and prices for farm produce became apparent. The problem was then attacked from the standpoint of prices for farm produce, while no attempt was made to correct the cost items. With imports of food and feed, the wholesale value of which amounted to almost 40% of the gross returns of German farmers, the government chose the traditional way of foreign trade restrictions for farm relief. Under the pretense that violent structural changes in international economy hitherto unexperienced made fixed tariffs obsolete, the parliament adopted the new method of sliding tariffs. Moreover, it granted the Secretary of Agriculture power to change the duty from day to day as conditions might demand.

The next step was the abolition of the most favored nation clause and thereby the abandoning of the principle of triangular trade. Bilateral trade agreements were followed by various types of import quotas and finally supplemented by the establishment of an import monopoly on grain. These technical means were designed to separate the domestic market from world price movements and to manipulate domestic prices for grain to a level which would guarantee the profitability of a majority of farms. High duties up to a prohibitive level, import quotas and a policy of "feeding the market" through the import monopoly, created the necessary shortage of supply in the market required to raise the price to the level aimed at.

Within three years the domestic grain market became watertight against world market influences and prices were not only entirely out of gear with the world market, but also completely subject to the government's command. This result was only obtained by coordinating the means of foreign policy with an entire system of domestic market policy covering every one of the carbohydrate commodities. The markets for animals, meat and eggs were only protected by tariffs, quotas, and, in the case of animals and meat, by veterinary ordinances, while direct intervention in the market was avoided. There remained, however, one hole in the protective system, namely, the importation of oilseeds and oilcakes duty free. Oilcakes were so cheap compared with grain that they were substituted for feed purposes. In 1933 an oil and fat monopoly was established. It closed the last hole in

the tariff wall. The tariffs on lard and butter had been raised, and, later on, superseded by a sliding scale of decreasing import quotas. Now the monopoly curtailed the import of any kind of oils and fats and their raw materials arbitrarily and manipulated the price on the domestic market. Thereby from 1933 on the entire German market for agricultural produce as such has been absolutely emancipated from foreign price or quantitative influences.

One important change in the general foreign trade policy became effective in 1932. It also had its repercussions in the import of agricultural produce. The rigid control of foreign exchange and foreign trade led to the method of barter trade. This caused shifts of purchases of agricultural produce toward countries that were willing to enter barter agreements, while it removed price as the determining factor in the origin of imports.

If we seek the most influential reasons behind the entire change in foreign trade policy we must distinguish between two periods. From 1928 to 1930 the main object was to raise the price of farm produce above cost. But while this aim is also maintained later, from 1930 on the run of foreign creditors upon German banks brought into the foreground the Reichsbank defense of the currency. The trade balance had to be adjusted. Therefore the methods originally designed for farm relief gained strength as devices for saving foreign exchange. From 1932 on the aim of food autarchy, which had been under permanent public discussion since 1919, began to figure as the propelling force. Many mixed motives are behind the German idea of food autarchy: the fear of the consumer that food shortage might happen again in times of emergency; the strong interest in national defense; and the desire of the farmer to be safe against foreign competition, are some but not all of them.

The results of this gradual development of a strictly regimented foreign trade have been the decline of the food and feed imports from their peak in 1927 of 4 billion marks to a level of approximately 1.2 billion marks in 1932 and a stationary condition from then on with fats, eggs, small amounts of grain, fruits and vegetables as the main components of the import list. Another consequence was the retirement from the export market of those amounts of rye that had always been exported. In spite of all the efforts, at the end of 1936 food autarchy is not yet attained. In fact it is no nearer than it was in 1932. Since 1928 food prices have been independent of the foreign level. Since they are kept high above world market levels, industrial export has to be

subsidized. Agriculture could fill the gap created by restrictions on imports, expand the volume of production and gain thereby, as well as by higher prices. But since the expansion did not succeed in entirely making up for the curtailment of foreign supplies, the nation as a whole consumes less, which is especially true for fats and fruits.

I am doubtful whether any lesson can be learned from the changes in Germany's foreign trade policy. It seems to be the course of least resistance that import countries with strong agricultural interests follow as the easiest way of farm relief in case of restrictions on foreign trade caused by an international agricultural depression. As soon as the currency is in distress such measures will be chosen anyhow, although they raise the costs of industrial export and although they prevent the agricultural exporting countries from buying industrial goods abroad. The super-protection in Germany has raised the cost of agricultural production because of the expansion of marginal production, and the infliction of diminishing returns with increasing intensity. While it has also lowered costs of production—because overhead costs decline with increased output—at the same time it has created vested interests which have entrenched themselves solidly. To reopen the German market for increasing food supplies would require enormous forces to overcome the resistance of the farmers, foreign exchange policy and national defense policies. Wide concessions in the field of industrial tariffs would be the strongest lever to offer any results at all. But Germany's territorial policy toward southeastern Europe and the barter trade methods make it doubtful whether a reorientation toward purchases of United States farm products has any chance. Fats will be bought mainly in the form of whale oil, soya beans and butter, while minor lard imports will be bought in European countries. In the field of cotton a shift toward increasing use of substitute staple fibre is under way. But there remains a large demand for natural cotton and since German farmers are disinterested, the chances of selling American cotton are considerably better. Yet here too the strong competition of countries with barter agreements has to be reckoned with.

Another lesson to be gained from the German course of events in foreign trade policy is that preceding high tariffs and protection for industries—as well as the differential rent of industrial monopolies—had to be paid by agriculture, and that with a lag of a few years agriculture had to receive farm relief as an equivalent for the ensuing loss in purchasing power. But since the agri-

cultural tariffs, which should have given equality to the farmer, were only partly and under certain conditions effective, additional measures had to be applied. These measures designed to make the tariff effective led in the case of Germany straight to planned economy and wholesale regimentation.

II. Market and Price Policy

In the markets for agricultural produce the government's policies were closely synchronized with those in foreign trade. From 1924 to 1927 there is not much that can claim to be called a market policy. During that period the traditional liberal attitude of prewar times again prevailed. Besides the reintroduction of tariffs, there is no indication of new methods or of any new agencies for their application.

When prices began to slump on the world market late in 1927 and when it became apparent that the reconstruction of the productive capacity was not accompanied by a new prosperity for the farmer, a new era in agricultural policy began, an era of determined separation of the entire price structure of farm commodities from that on the world market and an era of active intervention in the domestic market.

a. State Intervention.—This period embraces the years from 1928 to 1933. Combined with the aforedescribed adoption first of flexible high tariffs and later on of import quotas, the government began to stabilize prices for carbohydrates, namely sugar, grain and potatoes, by means of intervention. It abandoned import certificates as export subsidies and began to set up a State grain corporation upon which the duty was imposed of stabilizing prices for wheat and rye at the desired level. This public corporation operated by "discriminative marketing" of all sorts. Surpluses of rye were disposed of by denaturing and selling as feed for hogs at low prices for the sake of pegging the price of the rest of the flour supplies. This sale of rye for feed was limited to certain areas. The human consumption of rye was stimulated by an elaborate bread law which established for example, minimum requirements of rye flour content for rye bread. The grain policy did not hesitate to reorganize the grain market all over again. Flour mills were forced to mill foreign wheat only in combination with a certain ratio of domestic wheat. The rate of extraction of flour from wheat and rye was changed from time to time by decree, thereby deciding its utilization as food and feed. Open market purchases and the operation of public granaries were other means used to get the grain price under control. Prices

for wheat and rye were kept in such a relation as to stimulate wheat production and curtail the production of rye.

All the changes described so far had wide repercussions in the grain trade and the milling industry. Large capacities of flour mills previously operated mainly on imported wheat were laid idle, while local mills gained.

Very soon it was discovered that feed grains had to be manipulated too. The foundation of a maize monopoly and prohibitive tariffs for barley completed the armory of the grain administration. When feed grain prices had to be stabilized and raised, large scale adjustments within hog production had to follow. Since the curtailment and final interruption of feed grain imports deprived the intensive hog production area near the northwestern import harbors of their advantage, a large proportion of the production began to move into the eastern provinces where a surplus of potatoes was available. On the other hand the artificial raising of feed prices established unfavorable conditions for those small farms which used to buy grain instead of selling it. The government stuck to the idea that the stabilization of grain prices was also an effective, though indirect, measure to stabilize the prices of animal products.

The sugar beet price was stabilized by controlling the sugar price through a flexible tariff, by organizing the sugar factories into a compulsory cartel, and by prescribing annual quotas for the maximum amount of beet sugar to be processed for human consumption.

The last gap in the grain price mechanism was the potato market. Since in Germany potatoes play a role similar to that of corn in the United States, they influence the price of feed grain for which they are an equivalent. The government therefore had to include them in the program. Subsidies for converting a part of the crop into flakes, starch and spirit served the purpose of bringing their prices under control. Provisions for the admixture of 10 to 15 per cent potato starch to wheat flour and of 15 per cent or more of potato spirit to all motor fuel solved the problem of how to get rid of both products outside of the grain market.

Experience with this first part of the market policy so far described has revealed several interesting facts. The stabilization of the price of one commodity has led with a certain lag of time to the unavoidable necessity of applying similar methods to all other commodities of the same group, because the entire domestic market intercommunicates. Attempts to establish a separate monopoly sector for certain agricultural commodities within an

environment of free competition have failed because the competitive price economy is so strong that it soon reconquers the whole market—even if it had been restricted to small reservations only. This holds especially true for a highly developed system of intensive mixed farming where shifts of production in adjustment to changing price relations are inherent in the ordinary farm management. While the German grain price campaign started with rye, it ended with all carbohydrates. Since carbohydrates were efficiently stabilized in price, the most natural reaction of the German farmer was to expand their production. This shift was checked in the case of sugar beet production by setting up definite quotas for the manufacturing of beets into sugar. For the other commodities, no checks were applied because the domestic market had at that time an open deficit in wheat, but this was subsequenly closed.

Another consequence was not expected and most undesirable. To expose it we have to glance for a moment at the economic environment wherein the stabilization policy had to move. From 1929 on depression developed rapidly in all industries, with a deflationary movement of all prices, increasing unemployment and shrinking pay rolls. The prices for wheat, rye, sugar and potatoes were pegged by the market policy at almost predepression levels. Compared with world market prices the German wheat and rye prices lay 150% higher, sugar 250% higher, and feed grains from 100 to 200% higher. The consumer's purchasing power in grain declined radically. The explanation of why it was possible to stabilize prices lies in the fact that bread and cereals have a relatively inflexible demand or even an inverse flexible demand. Consequently, the entire load of the shrinking purchasing power began to depress disproportionally the prices of those commodities which were not stabilized and which had a flexible demand. From 1929-30 till 1932-33 the cash returns from crops declined 25%, while cash returns from animal products declined 40%. It lasted some time until these shifts became apparent, due to the normal lag between changes in crop prices and ensuing changes in prices for animals and animal products. The initiators of the market policy had not anticipated this issue. They argued that a stabilization of grain prices also stabilizes indirectly the prices of animal products, which is generally correct. But, besides the ratio between feed prices and prices of animal products, the relatively flexible demand operated as well. Since the supply of animal products is rather inelastic the only consequence is that as long as prices are moving freely they restore the purchasing

power of the consumer by sliding down until the demand can absorb the supply. Since the purchasing power was unduly curtailed by pegged grain prices an additional decline in animal products, vegetables, and fruits, had to compensate for that.

From 1924 to 1932 the total gross returns of German agriculture were closely correlated with the volume of industrial pay rolls. The manipulation of the prices of only certain groups of products did not interrupt that correlation. This in turn led to the final completion of the stabilization machinery, which took place early in 1933, when a monopoly administration for all fats and oils was set in motion. The design chosen was rather simple. It consisted of the curtailment of the supply of edible fats for the purpose of improving the price of butter, which is ultimately normative for the returns from all milk and dairy products. With respect to the flexibility of the demand there was no other way out than to create scarcity to lift prices. This method was chosen more easily from the viewpoint of agriculture since the curtailment was exclusively imposed upon oleomargarine, which is mainly manufactured from foreign nonagricultural raw materials, namely whale oil. This method caught two flies with the same flap. Besides the stabilization of dairy products, it stabilized the output of meat through a decline in the supply of oilcakes. The shortage of oilcakes, on the other hand, put the brakes on an expansion of milk production.

To conclude this period of agricultural policy, I may say that it achieved its aims, namely, to restore the profitability of agriculture—at least so far as prices for farm products were concerned—by placing them under government control. However, it could not avoid stimulating all production.

b. Planned Economy.—Immediately after finishing the price stabilization machinery in the summer of 1933, under the auspices of the totalitarian State and the one-party system, another era in market policy got under way. While the previous policy tried to attain its goal with as little intervention as possible, the dictatorial regime incorporates the total mechanism of market policy built by its predecessors into a most vigorous and sweeping policy of planned economy. The trend of thought in regulating prices followed from 1928 on was not interrupted but carried out with fierce decision. While the preceding intervention tried to separate the domestic market from the influences of the world market, National Socialists tried to separate the agricultural sector from the national economic system at large. Although this policy took shape slowly over a period of time, I shall interpret

it now as it is revealed in its most recent manifestations. The whole philosophy is so strange that only painstaking effort can trace a brief outline capable of being understood.

To begin with the government has thrown overboard the former organization of the market which consisted of horizontal layers: production as the base, contraction and distribution of farm commodities as the second stratum, and financing and exchanges as a third one. The new policy organizes in a vertical structure according to the concept of the corporative State. An all-embracing compulsory National Food Cartel (*Reichs Naehr-Stand*) comprises the farmers, the dealers, the cooperative associations, the converting industries and the exchanges, and organizes them vertically for groups of commodities. Ten single cartels for the groups of commodities are in themselves composed of all parties. Above these compulsory cartels, with widest legal powers, the Reich has its separate machine for direct market intervention in the form of four state monopoly administrations: 1. for all grains and feeds; 2. for oils, fats and dairy products; 3. for livestock and animal products (except dairy products); 4. for eggs. These monopolies are entitled to import and export, as well as to deal with domestic produce in any domestic market. Since the instrumental equipment has every means of compulsion at its command, it is not surprising to see that the former policy of manipulating the price through the correction of supply or demand is superseded by a *system of prices fixed by decree*. Behind these regimented prices stands the ideology of a just price —a revival of the "justum pretium" of the middle ages. It is assumed that only a bound price with its stability can be a just price compared with the "accidental" or speculative character of the freely moving price. As a logical consequence, any kind of speculation is radically banned. There is no futures trade left. Planned disposition on the quantities takes the place of speculation. The dealer is not considered any more as a "dealer" or "merchant." He is a "distributor" who obeys orders according to the plan and receives his just hire for his work. There is no space for speculative profits—at least in ideology. In fact the government has curtailed the distributors' margin by compulsion. Planned economy in general is assumed as the more reasonable way of disposing of the production, since it is supposed to be free from hazard and from speculation. At present all prices for all farm products are fixed by decree, not only prices paid to the farmer, but wholesale and retail prices as well. The only exceptions are the prices of calves, of brewing barley and of

tobacco. Price diagrams show no oscillating curves any more but take the typical shape of monopoly prices, namely, straight lines with steps. Price is largely deprived of its function as the agency between supply and demand, and therefore the authoritative fixing of prices has to assume those functions as well. The differentiation between qualities has to be decided by the price dictator. For the sake of this intricate job the government has promoted the introduction of official standards and grades for all commodities. We find discriminative prices not only with respect to differences in quality but also according to the utilization of the product, as, e.g., with sugar for various purposes, or rye or milk of skim-milk. At the same time provision is made for equalization of prices among groups of producers or among various products. Within the individual cartels equalization fees are levied, for instance, for equalization of returns between fluid milk markets and manufactured milk areas. But the price authorities have to go still further. They have to take care that at the arbitrarily fixed level of prices the necessary volume of each commodity moves at the right time to the right market. This leads to two types of measures, the one being quotas and orders for market deliveries by the farmer, the other consisting of quotas for consumption. If shortages happen in the markets and the raising of prices is inadvisable, the mentioned solution consists either in giving orders for increased market delivery to farmers, or in the curtailment of supplies for all markets, for example, by a lower quota for slaughtering, or egg or butter sales. To avoid undesirable social effects quotas have been set for the consumer on maximum purchases of certain fats.

The mechanism of dictated prices has been refined all the time. Nevertheless it is crude and primitive beyond comparison with the former freely moving prices. One has provided for a gradual increase of grain prices with the progress of the crop year. Another has provided for price territories—, e.g., 16 price regions for rye and 17 for wheat. This, however, has the effect that at the borderline of each price territory a step appears with all the undesirable consequences. Simultaneously, unforeseen conditions which belong to the usual happenings on any market play havoc with the officially preestablished order. The administration is on guard night and day to pursue all such relapses into the banned liberal price economy. Again as in wartime, the most detrimental influences originate from the new opportunities cropping up every minute to make money by neglecting or deliberately disobeying the rules set by the state. The temptation to bootleg

proves too strong for most of he farmers, as for merchants as well.

No wonder a huge bureaucracy of undreamed of dimensions is engineering this dictatorial price machine. Nothing more natural also than that the country is swamped with a mess of red tape. In 1935 alone, 700 different ordinances concerning agricultural markets were published in the *Reich Law Review.* Yet if I try to draw a lesson from this new chapter in German agricultural policy I have to be very cautious, because the experiment is still in the making and only history can ultimately decide the final consequences. However, some conclusions already offer themselves.

Germany's compulsory cartellization of agriculture, of the trade in agricultural produce and the processing industries, is not an isolated phenomenon. Within an economic system that not only does not oppose monopoly but is built upon the idea of bound code-wages, state supervised trusts and cartels in industries and trades, within an economic environment of hypertrophical protectionism, it is only a natural consequence that farm relief and finally agricultural policy are drifting into the form of cartellization. It is also obvious that the very foundation of a liberal system in agricultural policy cannot be carried out without free competition in the other sectors of the economic system.

There is, however, one large field where the dictatorial regime can claim to have achieved something in less time than would otherwise have been possible. This field is the entire system of the German dairy market which contains the largest industry of the country—the creameries and dairy plants. Here the development was ripe for reorganization and rationalization. The controversial interests of groups of farmers, of creameries and milk dealers offered almost insurmountable obstacles against attempts toward reorganization of market supply. Here brute force and dictatorial rule did the trick at once. First, all existing societies and organized groups of interest were dissolved; second, the milk producers were compulsorily organized in 80 regional milk supply societies, with the creameries and the milk dealers as participating groups. After two years, again by central decree, the major part of these societies were liquidated and replaced by only 20 larger associations. Although there is much complaint from all sides by the farmers one cannot deny that the compulsion achieved something which is a definite economic advantage. It consists of the reorganization of all the milksheds and a whole-

sale rationalization of the creamery industry and city milk plants. This was prepared for a long time ago; it would have come even without the club of the dictator, but has now come more quickly and more thoroughly.

To sum up the latest experience of the German farmer with the authoritarian agricultural policy, we have to state that the disparity between farm prices and industrial prices has disappeared, that the gross returns for agriculture rose from the depths in 1932-33 till 1935-36 by approximately 38%, while the total income of labor and the white-collar class rose during the same period by only 23.3%. The rise of gross returns was only possible in connection with the public spending, increasing employment and industrial recovery. But agricultural policy is responsible for the disproportional gain in purchasing power of the farmer in comparison with the rest of the population.

Another interesting item seems to me that there was no need for direct control of production, even under a planned economy, which in its present state is almost identical with a perfect fortification economy. At least for some years to come the control of markets with sales quotas will serve the same purpose without interfering directly in the sphere of production. The German farmer can hardly build up a surplus. The land supply is strictly controlled by the coverage of potential farm land areas by forests which are owned by the State or otherwise protected. Therefore expansion is only possible through intensification. This requires more fertilizer or more feed. At present the controlled price relation makes for an increased production of butterfat, lard and oilseeds, which means at first increased feed production. The open gap will close only very partially and at a slow rate. This may avoid direct control of production.

In a country with the highly developed agricultural technique and the innumerable diversifications of production, an attempt to control production directly would upset the productive machine almost instantly. Even the much easier task of controlling the market and fixing prices is only possible at the price of a mammoth bureaucracy and unceasing friction—although Germany has now had nine years of experience in training the vast civil service for those purposes.

The bound price has practically brought about the consequence of a sales guarantee for the farmer and of sales quotas for distributor and processing plants. The sales quotas have become a most decisive factor affecting the value of a farm. Quotas are something like a permanent allotment. The hazards of free price

so much contaminated by the totalitarian agricultural policy have been abolished. Instead the new hazards of bureaucratic changes by decree and the bad fitting and unavoidable severities of ready-made quotas have been substituted. The attempt to influence and steer the economic system has ended very soon in thorough regimentation to the bitter end.

There still remains another interesting angle of latest experience with the planned economy. The same machine which is used to raise prices for the benefit of the farmer under surplus conditions, is used against the farmer and against the middleman for the protection of the consumer as soon as scarcity appears. Minimum prices become maximum prices as well. The threat of the concentration camp for farmers or merchants who sell or buy above prices fixed by the government exposes, to my mind, more the weakness than the strength of the system of policed prices.

Private discussion among German farmers concerns a new topic: instead of complaining about the injustice of liberal price anarchy, they now complain about the injustice of an iron planned economy.

PAST AND PRESENT THEORY REGARDING FUTURES TRADING[1]

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To the late H. C. Emery belongs the credit of setting down the first comprehensive survey of future trading as conducted in this country. Emery's essay entitled "Speculation on the Stock and Produce Exchanges of the United States" was published as a doctoral dissertation by Columbia University just 40 years ago. There had been earlier treatments of one or more aspects of the subject; a fairly comprehensive body of court opinion had been built up; Congressional hearings were available in volume; and most of the states had at one time or another enacted laws bearing on one or more features of future trading. Emery undertook the task of assembling these materials, separating the small body of fact from the much larger body of fiction, making such additions as he could by direct inquiry, analyzing and integrating the facts thus assembled and drawing such inferences as seemed warranted. He turned out a work of the first order, judged either by prevailing or by present-day standards.

At the time of its appearance in 1896 it was read widely and received favorably. It soon became the standard source on the theory of speculation and has continued to be to this day. It has been the practice for many years among text writers on economics to include somewhere in their treatise three or four pages on organized speculation. No work is regarded as complete without this casual reference. Either directly or indirectly, the primary source of these materials is Emery.[2] It is in place, therefore, to start with Emery as representing the substantial framework of present-day theory, then to modify and supplement this framework where necessary in the light of more recent knowledge on the subject.

I

What are the economic functions of speculation, with particular reference to future trading? Emery describes in considerable

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

[2] See Taussig, *Principles of Economics* (3d ed.), vol 1, pp. 159-166; Deibler, *Principles of Economics* (2d ed.), pp. 175-184; Edie, *Economics*, pp. 218-19; Ely, *Outlines of Economics* (5th ed.), pp. 633-35; Bye, *Principles of Economics* (rev. ed.), pp. 178-183; Fairchild, Furness and Buck, *Elementary Economics*, vol. II, pp. 82-91; Weld, *The Marketing of Farm Products*, pp. 336-361; Clark and Weld, *Marketing Agricultural Products*, pp. 421-441; Hibbard, *Marketing Agricultural Products*, pp. 134-156.

detail a number of such services.[3] For the purpose of testing their validity they may be briefly enumerated under the following headings:

1. Organized exchanges provide a special class of speculators who carry the price risks of merchants and manufacturers. Through this facility, these trade interests are able to hedge or insure themselves against price hazards and in turn narrow their margin of profit to benefit the consumer or producer or both.
2. Speculators are willing to carry these risks because through accurate forecasts of future events they are able to reap a profit.
3. To forecast future events, a large body of valuable, current facts is continually being provided.
4. Effective forecasting, especially by short-sellers, results in price leveling and price equalization with respect to time and place.
5. A highly sensitive, continuous market results.

Emery recognized, however, that, in practice, future trading does not function perfectly; that abuses such as manipulation, corners, the circulation of false rumors and excessive public participation in the market, were from time to time factors of importance. These factors, however, were regarded as temporary; they were certain to generate counter forces which would destroy them and were regarded as unduly exaggerated in the public mind.

These concepts of future trading have a familiar ring. They are found with varying emphasis in most of the current literature. If they were true 40 years ago they are true today since trading practice has not changed materially since that time. We are required to test these concepts in the light of present-day knowledge of future trading. The most important single source of information on this subject are the records of the Grain Futures Administration (since July 1 of this year the Commodity Exchange Administration). These records date back to 1924 and

[3] The more important may be summarized as follows:
Future trading has the effect of forecasting or predicting future events and hence constitutes "the chief directive influence in the economic field in which it prevails." (P. 102; also p. 113 and p. 145.)
"The success of a speculator depends on the accuracy of his estimates, and it follows that where we find organized speculation we find the best perfected facilities for securing early and accurate information." (P. 116.)
The price of a future is an estimate of what the spot price of the commodity will be in the future month. (P. 115; also p. 132.)
Speculation "acts to concentrate in a single market all the factors influencing prices. In this way a single price is fixed for the whole world. By means of arbitrage transactions former differences of price in different markets have been leveled." (P. 120; also p. 137.)
"The more perfect the speculative market becomes, the more sensitive it is to every change in conditions." This results in a market having "less violent but more frequent fluctuations of price." (P. 121.)
The much maligned short-seller is the most potent influence in preventing wide fluctuations, checking inflation by his short sales and then minimizing the decline by his covering purchases. (P. 121.)
Speculators like best risks showing wide fluctuations in price. However, "speculation is a result, not a cause, of fluctuation." (P. 155.)
A special risk-assuming class provides insurance against price risks through hedging for the middleman and manufacturer. But to the extent that the latter's risks are minimized their profits are diminished to the advantage of producer or consumer or both. (Pp. 159-165; also p. 109.)

have been released from time to time as general or special reports.

II

One of these reports throws some light upon the class of speculators who assume the two-fold responsibility of carrying the price risks of merchants and forecasting future market events.[4] This report summarizes the results of a study of wheat futures commitments and corn futures commitments open on the books of commission merchants on September 29, 1934. It relates only to the Chicago Board of Trade. Since the summaries for corn are quite similar to those for wheat, we will consider only wheat. As of this date there were approximately 157 million bushels of wheat futures contracts open on the long side and exactly the same number open on the short side of the market. These open positions were traced to their ultimate source to find out for whose account they were made. It was found that they were being carried by some 13,000 separate interests, largely individuals. There were accounts from every state as well as from foreign countries, but with the greatest concentration in the Central West. Of these 13,000 accounts, approximately 88 per cent in point of number were speculative, 8 per cent hedging and 4 per cent foreign unclassified. As might be expected, the speculators carried most of the long side of the market (75 per cent in volume) while the hedgers assumed most of the short position (82 per cent).[5] The 10,183 long speculative accounts were mostly small, 48 per cent being job lots and 92 per cent being less than 25,000 bushels each. In contrast, the 299 short hedging accounts averaged 420,000 bushels each.

Assuming that this cross-section is typical of other markets and of other periods of time, we can draw this inference: a large number of small long speculators carry the price risks of a much smaller number of large trade interests. This squares fairly well with Emery and with current theory. A corollary might also be added: that since the hedging requirements are mainly on one side of the market, if these risks are to be insured they must be carried by speculators. This one-day cross-section does not, of course, describe precisely other markets and other periods of

[4] Bagnell, *Analysis of Open Commitments in Wheat and Corn Futures on the Chicago Board of Trade, September 29, 1934.*

[5] The following table summarizes the number of wheat futures accounts:

Type of Account	Number long	Number short	Number even	Total
Speculative accounts	10,183	840	615	11,638
Hedging accounts	730	299	18	1,047
Unclassified (foreign)	.....	...	...	509
Total				13,194

time. Fairly wide variations are to be found from season to season, from year to year and from market to market. Other studies of the Commodity Exchange Administration, however, supply sufficient supporting evidence to warrant the belief that the broad inferences just drawn are valid.

The speculators who carry the price risks of hedgers are willing to do so in the hope of profit. In their effort to profit, particular account is said to be taken of probable future events which in turn results, at least to some extent, in these events being forecast and discounted in current prices. In the study of wheat futures accounts open on September 29, 1934, there were found to be 11,638 speculative accounts open in the market, 10,183 of which were long, 840 short and 615 arbitrage accounts. Some light is thrown upon the quality of their forecasting in an examination of their usual occupations.

When classified there were approximately 600 occupations and subdivisions represented, ranging from abstractors to yeast makers. Some of the more important occupational groups included:

OCCUPATIONAL GROUPS*

	Number
Farmers	2,539
Merchants (including automobile dealers, druggists, grocers, etc.)	1,437
Retired	793
Unemployed	530
Physicians	523
Salesmen	492
Attorneys	397
Insurance brokers	200
Teachers	163
Engineers	124
Accountants and auditors	119
Dentists	112
Secretaries and stenographers	104
Bankers, unclassified (probably mainly investment bankers)	75
Bank officers and employees	51
Clergymen	25

* Data in this table represent accounts in both wheat and corn.

Among the less important groups the widest variety of occupation was found, such as 2 ambassadors, 8 artists, 6 aviators, 24 barbers, 11 beauty-parlor operators, 17 butchers, and so on. An attempt was made to divide all of these speculators into (1) an executive-professional group and (2) a clerk-artisan group. Out of 10,305 so classified, 3,068 or 29 per cent were of the executive-professional type and 6,237 or 71 per cent of the clerk-artisan type.

These facts are of interest here only in so far as they suggest forecasting ability among actual speculators. Their occupations are not, of course, precisely indicative of their knowledge of wheat prices. Physicians, attorneys and teachers could know a good deal about the grain trade and still follow their chosen professions. But this does not seem likely and especially among the

71 per cent of the clerk-artisan type. It seems more reasonable to believe that this entire group with their experience in actual speculation and with such background knowledge as they may have to condition their commitments is a little better equipped to forecast wheat prices but not much better than any other 10,000 average American citizens. Certainly as a class they are not experts even though they include some experts among them. It follows that they are not likely to demonstrate an average accuracy in their forecasting much above 50 per cent. It is noteworthy that they do not include among their number the elevator, shipping and milling interests. These interests prefer to hedge rather than speculate. Yet they constitute a very important part of the real experts of the grain trade.

III

Some additional evidence bearing on the validity of current theory regarding future trading is to be had from a comparison of types of speculative trading with the movement of prices. In the study just cited, speculators were classified by types of occupation as of a single date. The continuing records of the Commodity Exchange Administration do not include information of this kind except for the very large trading accounts. They do permit, however, of a rough classification of traders into (1) large-scale speculators, (2) large hedgers and (3) small traders, most of whom are believed to be speculators.

A number of studies have been made of the operations of these three types of traders dating as far back as January 1925.[6] The results of these analyses have not been all that could be desired mainly because the data are neither as comprehensive nor as accurate as they should be. But I am willing to venture some observations from these studies as being at least probabilities. They are based upon a sizable sample of actual experience and in that respect are superior to purely deductive reasoning.

The first is with respect to hedgers. Futures commitments of hedgers may be either long or short, but as a total of all hedges their net position is, as a rule, heavily short. This net short position varies in general with the visible supply both from season to season and from year to year. In other words, the commercial supplies of grain stored at central markets are annually carried forward by the terminal marketing interests who meet all ordinary merchandising costs except those incident to unforseen price

[6] See *Fluctuations in Wheat Futures, Speculative Transactions in the 1926 May Wheat Future, Major Transactions in the 1926 December Wheat Future, Reports by Members of Grain Futures Exchanges*, part 2, and *Trading in Corn Futures.*

variations which are born usually by speculators. In an attempt to improve the basis of their cash purchases and sales, hedgers frequently shift their futures positions or arbitrage from one future to another or from one market to another. These facts suggest the following inferences: (1) that merchants' costs are decreased and therefore their profits increased through hedging and arbitraging; (2) that this increase in profits is in reality contributed by speculators as a group; and (3) that the force of competition results in this profit being passed on to the benefit of either the producer or the consumer or both.[7]

Since the futures positions of hedgers are governed largely by their trade commitments and particularly by commercial supplies in stores, if these positions are directly related to prices the latter would need to vary as the movement in commercial supplies varies. This in fact is not the case. While there are some seasonal variations in futures prices, investigations thus far do not indicate that they are caused by hedging operations.[8] Mention should be made of the fact that hedging and arbitrage operations in the form of "switches" from one future to another and "spreads" between futures based upon the position and movement of commercial supplies do measure with considerable precision relative price differences between futures and markets.[9]

Consider next the operations of large-scale speculators. These are comparatively few in number. In wheat futures, Chicago, there have probably not been more than 50 in the market at any one time during the past 10 years if we count as large-scale those having a net position of 500,000 bushels or more. Usually the number is considerably fewer than 50. Their operations are neither consistently long nor consistently short, but vary from time to time and between individuals. While they are long as a group they share with the small speculators the burden of carrying the hedges forward; while they are short, they add to the hedge position which small speculators must carry.

Their relationship to price is as a rule a direct one, that is, as prices advance their combined market position is increased by purchases and as prices decline their combined market position declines through sales. In general, also, this direct relationship becomes more certain as the size of price change and position change increase. Significant direct correlations as high as

[7] Cf. Hoffman: *Future Trading Upon Organized Commodity Markets in the United States*, pp. 397-410.

[8] See Irwin, *Seasonal Tendencies in Wheat Futures Prices*, Grain Futures Administration; also for certain non-seasonal tendencies see Working, "Cycles in Wheat Prices," *Wheat Studies*, November 1931.

[9] See Working, "Price Relations between July and September Wheat Futures at Chicago since 1885," *Wheat Studies*, March 1933. See also Hoffman *op. cit.*, pp. 309-313; also p. 435 ff.

+.73 have been found for periods in which price movements and position changes of these leading speculators were large. In a recent comparison for one day each week for the 2-year period September 14, 1934-September 11, 1936 during which price and position changes were relatively small the correlation was found to be +.51. (See Figure 1)

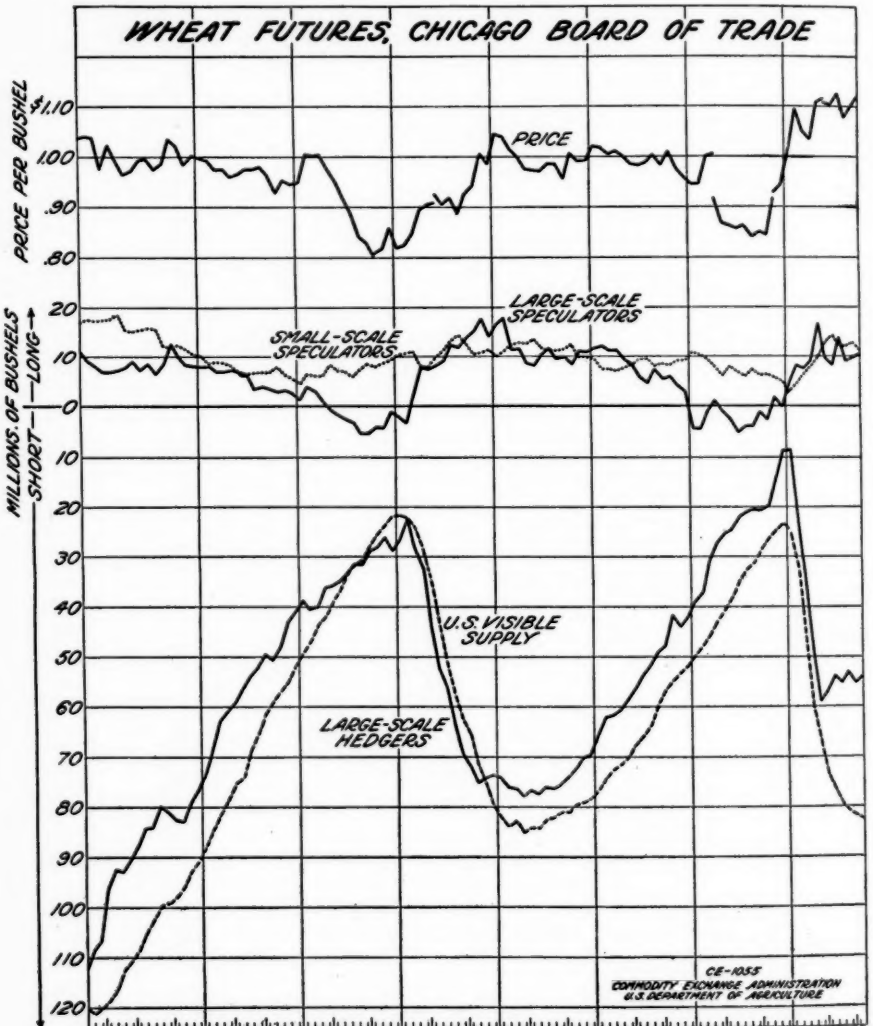

FIG. 1. The combined net position of large speculative accounts, of large hedging accounts and of a sample of small speculative accounts compared with price and U. S. visible supply of wheat, for one date each week, September 14, 1934-September 11, 1936.

This direct relationship is challenging with reference to current theory. These large operators are presumably the intelligentsia among speculators. If it is assumed that their trading is in response to price changes then their group forecasting ability in point of time is practically nil. If on the other hand it is assumed that their trading causes a measure of corresponding price change then their forecasting ability may be of considerable importance. Correlation of itself throws no light on this point. There is, however, evidence to support the belief that the combined trading of these leading speculators is causal with reference to price from the fact that their individual trading shows little or no relation to price. When combined, the trading of one leader or group of leaders is later replaced by another and in turn by another to result in a continuous series of market segments which do correlate with price. Either then these traders pass along their capacity to anticipate prices from day to day or their trading of itself causes prices to vary. The latter seems more reasonable.

If the trading of market leaders gives current direction to futures prices do these leaders display any forecasting ability? This question is impossible to answer in the absence of an independent measure of what prices ought to be in the light of fundamental supply and demand factors. In retrospect there appear to be times when price advances or declines find their justification in subsequent available supplies; at other times the suddenness with which prices and market positions change, only to be as suddenly reversed, strongly suggest that these market leaders have very ordinary forecasting power but extraordinary purchasing power. Within a price range of perhaps 30 per cent, their operations may not meet pronounced resistance; beyond these limits they are likely to find increasing resistance whether their forecast proves later to be correct or incorrect.

In the absence of pronounced market changes by hedgers, those taking the opposite position to the large speculators must necessarily be the small speculators. It follows that the changes in the combined market position of small speculators will usually be inverse to price changes and particularly in periods of pronounced price movements. This is somewhat contrary to current opinion regarding the role of the "general public." If their composite trading has any effect upon price it is in the direction of resisting change. If they can be said to do any price forecasting it is only in the negative sense of resisting to an increasing extent substantial price swings.

IV

In the light of these facts, the concepts are set forth at the beginning of this paper would appear to need recasting only in one important area—that which relates to price forecasting and price leveling. With reference to hedging the evidence indicates that for the larger commercial interests futures markets do afford a means of price insurance. The fact that these interests continue to employ this device in preference to outright speculation indicates its long-run financial superiority. Additional evidence is unnecessary, also, to demonstrate that future trading provides a sensitive, continuous, fact-gathering market of value in supplying quotations, current trade news and a ready market.

But on the matter of price forecasting, and through price forecasting price leveling, the question of doubt may rightly be raised. The evidence is insufficient to support the belief that future trading contributes much in this direction. It is easy to understand how, deductively reasoning on the matter, one might conclude that the combined opinion of thousands of futures traders must cause present prices to anticipate future needs and so iron out unusual price swings to a degree not possible in the absence of these traders. This can result, however, only to the extent that these traders display superior knowledge in their actual trading. Here the evidence if anything points in the opposite direction. Hedgers and arbitragers do display unusual ability through the impact of their trading upon relative prices between futures and between markets. But the composite effect of the large body of speculators upon the direction and movement of absolute prices is a very random and uncertain affair. In this the larger speculators assume the directing role, with undue reliance being placed on trading strategy and financial strength. The small speculators supply the necessary counter positions when hedging requirements are inadequate.

If a defense is to be made of the present market-making abilities of speculators it is to be found, it seems to me, in a comparison of our present highly competitive exchange system with possible alternatives. Grain and cotton and other commodity prices might, for example, be determined as they are in the agricultural implement industry, the steel industry or the packing industry through price leadership, sharing the market or cooperative organization[10] to result in a much larger measure of price forecasting and price leveling. But the social cost might not be worth the

[10] Cf. Burns, A. R., *The Decline of Competition.*

price. If it be granted that our present pricing system on exchanges is a rather unstable affair, at least these markets cannot be accused of being a perpetual shelter for those who would avoid our anti-trust laws. And in these times of superintegration, both in law and in fact, this is an attribute deserving careful consideration.

Discussion by Holbrook Working

Food Research Institute

Professor Hoffman has dealt admirably with aspects of futures trading which particularly interest the economist. Mr. Lindley has brought to our notice matters which economists too often take for granted: as we drive our automobiles with little thought of the study and knowledge that has gone into their designing, and of the careful attention of the mechanics who built and who care for them, so we often take too much as a matter of course the technical perfection of the futures markets and the pains that are devoted to maintaining their satisfactory operation. And finally, Mr. Mehl has stated the point of view of the agency charged with supervision from the standpoint of the public interest.

It is apparent from these papers that the problems of futures trading take on a different appearance according to the standpoint from which they are viewed. Each aspect is a significant one, and it is well to have all three brought to our attention at once.

Hedging practice and the theory of futures trading.—In Professor Hoffman's paper—which it is my function to discuss—there is lacking mention of one feature of the relation of hedging practice to the modern theory of futures trading which seems to me worthy of mention. A large group of so-called hedgers uses the futures market not so much to avoid price risks as to achieve deliberate speculation in place of incidental speculation. The existence of this type of hedging, which I may call "speculative hedging," was recognized in a report of the Federal Trade Commission published 10 years ago, based on data collected in 1918.[1] Some five years ago, I developed what seemed to me evidence that such speculative hedging is quite prevalent;[2] and I was under the impression that Professor Hoffman now concurred in this opinion.

If speculative hedging is indeed so prevalent as I believe, the fact is important for two reasons. First, for realistic description, it is important to recognize that what passes as hedging does not always represent the avoidance of risk, but often represents the taking of unnecessary risk. Second, users of certain data collected by the Grain Futures Administration[3] should recognize that what pass in these records as hedging accounts are often merely records of the futures side of speculative accounts that involve speculation in both cash grain and in futures.

Quality of price determination.—Professor Hoffman's main conclusion I subscribe to heartily in principle, but with a significant reservation. Past

[1] *Report on the Grain Trade*, Vol. VII, pp. 43-57.

[2] "Financial Results of Speculative Holding of Wheat," *Wheat Studies*, July 1931, VII, 417-28.

[3] In this discussion I shall refer to the federal authority charged with supervision of trading in grain futures as the "Grain Futures Administration," rather than by its new title of "Commodity Exchange Administration." My references to it look chiefly to the past, making the old title usually the more appropriate for use here.

theory undoubtedly went too far in crediting futures trading with bringing prices under the dominating influence of traders with superior knowledge. Hoffman, however, raises the question whether speculative traders do "display superior knowledge in their actual trading," and concludes that "here the evidence if anything points in the opposite direction."

In swinging away from an incorrect view, the "present theory" which Hoffman sets forth goes rather too far, I think. Prices, as they are determined in modern speculative markets, are not so haphazard and imperfect as one may judge from too restricted a view of the information and trading habits of individual speculators.

Consider this analogy. My finger is composed entirely of molecules. If I correctly understand the physicists, they know that these molecules are moving about at tremendous speeds, and in an almost wholly haphazard fashion. On hasty deduction, it might appear that since all its particles are rushing madly about in such haphazard fashion, my whole finger should also be gyrating erratically about the room.

This analogy should not be pushed too far; but it correctly suggests a line of theoretical analysis that must be followed up before sound conclusions can be drawn from certain observations cited by Professor Hoffman. In the futures market, the individual trader is a molecule. Influences that may be wholly negligible in their effect on the motion of the single molecule may dominate the motion of the body into which the molecules are united.

"Large" traders versus "small" traders.—On one subsidiary point in Professor Hoffman's paper I dissent emphatically. The point reflects a view of the Grain Futures Administration, in which Professor Hoffman concurs, which tends toward regulations that are not helpful to the functioning of the futures market, but detrimental.

The point at issue concerns the interpretation of coefficients of correlation which show that the movement of prices is correlated positively with the trading of the large speculative operators. When these operators buy, the price tends to go up; and when they sell, the price tends to go down. Hoffman expresses no confident opinion on the basic question whether these correlations indicate that rising prices (for example) tend to cause large traders to buy, or that buying by large traders tends to cause prices to rise. On the matter of usefulness of large traders in the market, however, he ventures fairly definite opinions: they are not an asset to the market. The small speculators he regards with favor because their trading is so conducted as to tend to resist price changes, "particularly," he says, "in periods of pronounced price movements."

The evidence which Hoffman presents rests on observed correlations. There is involved the usual scientific procedure of drawing generalizations through testing an hypothesis. But the demonstration fails from neglect of an important principle in the logic of scientific deduction.

Suppose that we take as an hypothesis the suppositions:

(1) that purchases of a stated quantity of wheat futures by any trader or group of traders tend to raise prices; and that the price-raising effects are the same whether the purchasers be large operators or small; and

(2) that the price judgments of all speculative traders, whether large or small, are little better than random guesses.

Now give this hypothesis and certain well-established facts regarding futures markets to a competent mathematical statistician and ask him to work out what correlations should be expected between speculative trading and price movements. The statistician will be unable to state precise figures for the expected correlation coefficients without more specific information than we find it convenient or possible to supply as part of the hypothesis, but he can state the general character of the correlations to be expected. They are of the same character as the observed correlations which Professor Hoffman has cited as the basis for his conclusions.

We thus find the facts to be in accord with this hypothesis. The suppositions involved in the hypothesis seem to accord roughly with Hoffman's views, and the agreement of the facts with the implications of this hypothesis seems to support Hoffman's conclusions.

Now let us take a different hypothesis. Continue to suppose that purchases tend to raise prices, and by the same amount whoever makes the purchases; but assume that the price judgments of most traders are fairly trustworthy—equally so for small traders, on the whole, as for large traders. Suppose further that the main difference between large and small traders, apart from the magnitude of their operations, is that large traders generally obtain pertinent market information ahead of small traders. Give these suppositions to a competent mathematical statistician and ask him what correlations should be expected between speculative trading and price movements on this hypothesis. The answer will be that on this hypothesis the correlations to be expected are of the same general character as those we actually observe.

This is somewhat embarrassing to our pursuit after knowledge. It seems that the facts accord both with the supposition that the price judgments of speculative traders are nearly worthless and with the supposition that they are good.

Next let us take a still different hypothesis. Continue still to suppose that purchases tend to raise prices, and by the same amount whoever makes the purchases; but assume that the price judgments of large traders are generally highly trustworthy; while the price judgments of small traders are more often wrong than right. Again ask your competent mathematical statistician to work out the correlations to be expected. The answer will be the same as for the other hypotheses: the facts are in agreement with this hypothesis also.

This is most disturbing. We have taken three different hypotheses which are mutually contradictory with respect to their suppositions on the points on which we chiefly wish to know the facts. Yet we find the facts in agreement with all three contradictory hypotheses. The observed correlations accord with the supposition that the price judgments of all traders are worthless; with the supposition that the price judgments of the small traders are worthless, but the price judgments of the large traders are good; and with the supposition that the price judgments of all traders are good. The observed correlations accord with the supposition that large traders have no advantage in knowledge or judgment over small traders; with the supposition that large traders have an advantage, but only such as arises from getting pertinent information more promptly; and with the supposition that large traders have a great advantage over small traders in reliability of their price judgments.

Since the observed facts, as represented by the correlation coefficients, are consistent with all these suppositions, only one conclusion is possible: the facts chosen for observation are not suitable for discrimination among the hypotheses. The correlations cited really contribute no information on the question whether either large or small traders are good or bad influences on the market, from the standpoint of its function of registering sound price judgments.

I am sorry that time does not permit going on to more constructive conclusions. Having registered this dissent from a view shared by Professor Hoffman and the Grain Futures Administration, I want to close by reiterating my admiration of Professor Hoffman's paper, and by expressing my commendation of the Grain Futures Administration for the wise policy it has followed in proceeding slowly with regulation, and establishing at the outset a program of research aimed at developing the knowledge essential for intelligent supervision of the markets. The research problem is one of extraordinary difficulty, and if some of the tentative conclusions are mistaken, as I believe, no serious discredit is implied. The work of the Grain Futures Administration has contributed much to present-day knowledge of the functioning of futures markets, and Professor Hoffman has played an important part in promoting this contribution.

OBJECTIVES OF FEDERAL REGULATION OF THE COMMODITY EXCHANGES[1]

J. M. MEHL
COMMODITY EXCHANGE ADMINISTRATION

Other speakers have presented the economic and utility aspects of the future trading system. They have laid a broad foundation of understanding concerning the theory and practice of exchange trading. This enables me to approach the subject of commodity-exchange regulation without much preliminary discussion.

By way of brief introduction, I may say that I like to think of a futures market as a large and fine-balanced automatic scale, one fed by a constant stream of buying and selling orders and registering clearly and correctly the weight of mass opinion concerning price. Obviously, producers and consumers, as well as distributors, have a vital interest in the kind and character of the price-weighing service rendered by the commodity exchanges.

Granting that the exchange system provides a proper kind of price-weighing instrument, we need something more. We need supervision and we need occasional inspections of the weighing mechanism. There is nothing startling or new in this idea.

For centuries the state has interested itself in weights and measures. Government has long assumed authority over standards and methods of measuring distance and quantity. In more recent times, it has taken the same course in respect to standards for measuring quality, as seen in various grades and standards acts and in the pure food laws. For exactly the same basic reasons, Government may properly interest itself in regulating the central market places and the instrumentalities through which price is being measured. This applies with particular force to a futures market, which in a large measure fixes the general price standard for important farm crops.

It may be pointed out, I suppose, that in this justification for regulation there are lacking specific instances and cases. If time permitted, we could examine some of the records in actual cases arising under the old Grain Futures Act. The Cutten case is outstanding, but there were others of equal or greater importance from the standpoint of market integrity.

In one case, for example, we found that out of a reported total of 2,330,000 bushels of Chicago May rye futures traded in on one day, 1,800,000 bushels, or 77 per cent, represented purely

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

fictitious trades. On two other days, while the total trading was less, the percentage of fictitious trading in another future was 93 per cent. Most of this fictitious trading was accomplished by cross trades between one man's own account and the account of his wife. This case was dismissed when the United States Supreme Court in the Cutten case held that the law could be invoked only against violations in the making and not against completed or past offenses. Another case involving a corner in 1931 July corn was dismissed for the same reason.

An earlier case involved certain floor brokers who systematically injected themselves between the trades of customers for price cuts of from ⅛ to 2 cents per bushel, depending upon the movement in the market while the orders were in their possession. A test case was started on the theory that this was a form of manipulation, but that theory was held untenable by the Commission. The old law did not cover cheating or fraud as such.

While there were only 10 cases instituted under the Grain Futures Act, many others could and would have been prosecuted had the law been held applicable. An examination of these few cases, however, will disclose to fair-minded investigators the need for legislation and the reasons why so-called "self-regulation" by the exchanges is inadequate.

Reference to the Grain Futures Act of 1922 is quite necessary for an understanding of the present Commodity Exchange Act. In fact, one of the primary purposes of the Grain Futures Act was to obtain knowledge and experience upon which to predicate more specific legislation. Strictly speaking, there is no longer a Grain Futures Act since, by amendment in June 1936, the short title "Grain Futures Act" was stricken from the statute and the short title "Commodity Exchange Act" inserted instead. Additional commodities were then included and the law was strengthened and extended in light of past experience.

The Commodity Exchange Act now covers future trading in wheat, cotton, rice, corn, oats, barley, rye, flaxseed, grain sorghums, mill feeds, butter, eggs and Irish potatoes. These comprise little more than half, perhaps, of all the different commodities traded in for future delivery in the United States. In terms of volume of trading, however, and based on values, we estimate that trading in the commodities named will take in from 90 to 95 per cent of the total future trading in all commodities on all United States markets.

Under the Grain Futures Act, it was a criminal offense to disseminate false or misleading crop and market information to

influence prices in interstate commerce. This was about the only offense for which there was a criminal penalty, and it is worth while to note that there has been a quite wholesome respect for this feature of the law.

Manipulations and corners were not criminal offenses under the Grain Futures Act. The law was that if the Secretary of Agriculture had reason to believe that any person "is attempting to manipulate the market price of any grain" he might proceed to have such person denied trading privileges on contract markets. The United States Supreme Court in the Cutten case interpreted this to mean that the Secretary could not proceed against a person where the act of manipulation was completed and the offense was in the past. In other words, if manipulation was successfully accomplished, there was nothing we could do about it. Under the Commodity Exchange Act, manipulations and corners are criminal offenses and offenders may be prosecuted for completed acts of manipulation as well as those in the making.

I shall not take time to describe in detail the various provisions of the Commodity Exchange Act. The law is quite long and I assume that this audience is interested primarily in general objectives and possible effects. It may help clear away some of the cobwebs of misunderstanding if I first state what the Commodity Exchange Act is *not* intended to accomplish. It is not intended to guarantee high prices or prevent low prices. It is not intended to stop speculation in commodities. It is not intended to prevent short selling as such, and it is not the purpose of the Act to prevent price fluctuations or changes in price except as these are the result of manipulation or are artificially induced by excessive speculation.

It is the purpose of the law to assure the reflection of true prices and to prevent or diminish excessive speculation causing unwarranted price changes.

It is the purpose of the law to limit speculative short selling as well as speculative buying when, after notice and hearing, it is found necessary in order to prevent or diminish excessive speculation as a burden on interstate commerce.

It is the purpose of the law to prevent cheating and fraud, to compel honest accounting to customers, to require actual and open execution of orders and to stop bucketing.

It is the purpose of the law to require commission firms to treat and deal with customers' margin moneys and moneys accruing as the result of trade as belonging to such customers and to

prevent the use of such funds for extending credit to others. Futures commission merchants and floor brokers handling orders for others must register with the Secretary of Agriculture.

It is the purpose of the law to impose upon commodity futures exchanges and their members certain requirements and standards of business conduct in aid of the general purposes of the law. Exchanges must qualify for and be designated "contract markets" before they can conduct a futures market. They must not discriminate against producers' cooperative associations in the matter of membership rights or trading privileges.

In this discussion and in order to be as specific as possible, I have emphasized unduly, perhaps, the weaknesses in the original Grain Futures Act and have stressed unduly the penal features of the new law as they affect individuals. This may suggest that the administration of the Commodity Exchange Act will be largely one of police duty. I assure you we have a larger perspective than that. Police duty will be necessary, but we hope by gaining factual knowledge also to gain understanding and thus be able to assist in a proper evaluation of future trading and speculation as economic functions.

The 1936 amendments were passed so late in the last session of Congress that no appropriation was provided for their enforcement. Out of moneys available for the administration of the Grain Futures Act we have proceeded with the registration of futures commission merchants and floor brokers. It would have been unlawful for them to operate without registration. At this time there are approximately 750 commission firms registered and 600 floor brokers. Offices and branch offices of commission firms requiring display of registration certificates number slightly more than 2,000.

Owing to the lack of appropriations, we have been unable thus far to provide statistical data and information regarding future trading in cotton and the other commodities added by the 1936 amendments, such as are available for grains. We have been unable also to carry out the supervisory and investigational activities which are a necessary part of the business of enforcement.

Certain provisions of the law are self-executing and have been in full effect since September 13. These include the requirement that customers' margins and moneys accruing to them as a result of futures contracts shall be treated and dealt with as belonging to such customers. This means segregation of, and separate ac-

counting for, customers' moneys. The law does not require that minimum or uniform margins must be exacted from customers. It does not prevent a commission firm from extending credit. It does require that such credit be out of the commission firm's own funds and not out of moneys belonging to customers.

There is one provision of the Act which has not yet been made effective and which, no doubt, will be the subject of discussion and dispute when the time comes for its application. This is the power vested in the Commission consisting of the Secretary of Agriculture, the Secretary of Commerce, and the Attorney General to fix limitations upon the amount of speculative trading and the size of speculative lines for any individual. Such limitations cannot apply to hedging transactions. They may or may not apply to spread or straddle transactions, in the discretion of the Commission. The Commission may fix different trading limits for different markets, different commodities, and different futures. The limitations applying to speculative short sales may be different from those applying to speculative purchases.

Many new problems will arise in connection with the fixation of trading limits. However, the principle of limitation is believed to be sound, and here I revert to the analogy suggested in my opening remarks. The futures market is a price-weighing mechanism. We cannot suddenly throw an excessively large burden of weight on such a sensitive scale without dulling the fine knife edges of competition and creating vibrations and sources of friction that render results inaccurate and unreliable. The purpose of limitations will be to prevent this from occurring. Obviously, the power to fix limitations is one to be exercised cautiously and with due regard to many implications and possible effects.

Before closing this discussion I should mention the attitude and spirit of cooperation manifested on the part of the trade since the Commodity Exchange Act went into effect. In spite of three lawsuits which have been started by certain trade interests, to enjoin enforcement of the Act, I must say that the attitude of the trade as a whole is most encouraging. The substantial and farseeing leaders in the commodity trades apparently realize that the law strikes only at objectionable practices and that if future trading really is a valuable adjunct to the marketing system, proper regulation will give it a chance to prove itself and enlightened public opinion will give credit where credit is due.

In behalf of the Commodity Exchange Administration, may I

say also that we feel honored and are much pleased by the fact that the American Farm Economic Association should give future trading such a large and prominent place on its annual program? We hope it will have been found worthy of this place and trust that in our future studies we shall have the benefit of your suggestions and criticism as well as the inspirational and scientific guidance which is so peculiarly yours to give.

Discussion by L. S. Tenney

Chicago Mercantile Exchange

In the paper presented by Mr. Mehl covering the Commodity Exchange Act, he has very ably outlined the important provisions of the law and has presented his ideas so clearly that no one can well afford to present objections to the principles that he has laid down.

Speaking for one of the smaller exchanges now under the act, I desire to state very definitely that the Chicago Mercantile Exchange stands squarely behind the principle of honest procedure in all futures transactions as provided for in the Commodity Exchange Act. The rules of our exchange were drafted with great care and, with a few minor changes, the rules in effect last summer covered all the points in the new law. In some features our existing rules were even more severe than were required by law.

With this introductory statement, I wish to present for your consideration some thoughts that relate to matters closely connected with the Commodity Exchange Act.

First—and only briefly—this Act, except as it relates to an amendment to the Grain Futures Act, was conceived and enacted into law without the proper consideration by the Administration, by Congress, or by the industry itself. Butter, eggs, Irish potatoes and cotton were added. Why? Why were lard and pork products omitted? Why were hides, coffee and cocoa not included? Sugar is an important agricultural product and practically every person is a consumer. Why was sugar omitted? To these questions and others, there simply is no answer. As far as butter and eggs were concerned, these two great industries were regulated by law without a hearing before any congressional committee.

This procedure is un-American and we condemn it as a practice. Apart from every other consideration and granting that a law is ultimately to be passed, we feel that the leaders in any industry know something about their business and can contribute ideas that will be reasonable and constructive when embodied in a law. If Congress did not act on this matter in a haphazard and loose manner when it included other commodities in a grain measure, then the only other conclusion that can be reached is that those who favored the inclusion of our commodities felt that those who were actually using our futures market, representing primarily the middleman group, were wholly selfish and, therefore, unreliable as advisers in drafting a law.

Let me suggest in passing that it might be quite beneficial to agriculture if the federal and state research agencies devoted a considerable amount of time to broad research problems connected with the functions and costs

of the middle-man group including, naturally, the place of future trading in their scheme of operation.

One other consideration also to the law itself. The courts have ruled that a futures market is a part of interstate commerce and so subject to regulation by congress. We will assume for the moment that any law regulating a futures exchange might be considered constitutional. The question then is as to how far the courts will go in upholding features in any law that imposes as a requirement on a regulated exchange the control and regulation of other interests that are not interstate in nature.

In the present measure, the law requires that any exchange, to become a contract market, must provide rules requiring any warehouse, from which goods may be delivered, to come under the control of the federal administration. In other words, this appears like the back door method of securing legislation which by the front door is unconstitutional. I doubt if any person can claim that a local cold storage warehouse in Chicago, simply engaged in the cold storage business for local residents, is engaged in interstate business and yet by this method of legislation, these warehouses are subject to federal inspection and control.

If this principle of legislation is upheld, then can congress control the farm papers and the newspapers that carry advertisements by future commission merchants? Can congress control the restaurants where future commission merchants eat and the street railways which carry the merchants to the trading floor? These absurdities are presented simply to bring to your attention this very important trend in our national legislative halls.

Finally, I like Mr. Mehl's statement in the early part of his paper to the effect that a futures market is a price weighing instrument. I, personally, agree fully that in his illustrations, he has described transactions that should not be allowed in a futures market. Hence my conviction that legislation was inevitable. The difficulties arise from the fact that if we give the political powers (and I am not referring to Dr. Duvel or to Mr. Mehl) any control over price-making machinery, are we assured that this price-making machinery will operate in a true manner or can we expect price distortion for political purposes?

Manipulation of price is always bad; but what is manipulation of price? If the butter market is weak in September and a keen observer of butter production who travels widely is convinced that butter prices are even yet too high, does he manipulate the market when he sells short 100 cars of butter for delivery in November? The answer might be decided on the basis of whether a farm-minded or a consumer-minded administration was in control in Washington.

Again, if butter is weak in price and every one would admit the fact, is it manipulation for a group of merchants to join and maintain a price of 2¢ per pound above the generally admitted price? Merchants probably wouldn't be expected to do this, but suppose the government itself pegs the price at 1¢ or 2¢ above the generally accepted price. Is this manipulation and should the Exchange expel the government representatives as our Exchange would almost surely do if an individual thus distorted the market?

These are questions that deserve serious consideration from a group of scientific men such as is represented here. It may be taken for granted that

the speaker has a bias but I am frank when I say to you that for over seven years it has been my responsibility to see that the Chicago Mercantile Exchange clearly reflected the true value of butter and eggs. During this time I have seen prices very low—too low for the good of the producer and decidedly too low to please the politicians. I have seen prices high—perhaps too high for consumers. But whatever the price, someone was willing to sell and someone else was willing to buy and both parties were always compelled to carry their contracts to a complete fulfillment. I have never seen any man or any group of men set out deliberately to distort the price from its reasonable basis.

With this background, I can only say publicly what I have said privately to Mr. Mehl and to Dr. Duvel, that they may expect full cooperation in the enforcement of this act from the Chicago Mercantile Exchange.

ESSENTIALS OF AN EFFECTIVE FUTURES MARKET[1]

A. F. LINDLEY
CLEMENT, CURTIS & CO.

President Davis, in inviting me to address this gathering, assigned to me the topic "Essentials of an Effective Futures Market" and stated that he desired the talk to come from a representative of the grain trade who would speak with ample practical knowledge of the futures market, but who would incidentally pay his respects both to theory and to past and proposed regulation.

This is a large order for one whose training has been wholly practical and whose knowledge of theory and legislative regulation is incidental to practical experience.

Fortunately for me, our preceding generations of business men and lawyers had a marked ability for concisely and lucidly stating their thoughts and purposes, and as a theory of "Essentials of an Effective Futures Market" I feel that I cannot do better than quote from the Rules of the Board of Trade of the City of Chicago, adopted after its special charter was granted by the Illinois legislature in 1859. The first paragraph of these Rules, designated as "OBJECTS," reads:

> The objects of the Association are:
> To maintain a Commercial Exchange;
> To promote uniformity in the customs and usages of merchants;
> To inculcate principles of justice and equity in trade;
> To facilitate the speedy adjustment of business disputes;
> To acquire, and to disseminate valuable commercial and economic information;
> and, generally, to secure to its members the benefits of cooperation in the furtherance of their legitimate pursuits.

Theoretically and fundamentally the "Essentials of an Effective Futures Market" for today are stated in this brief paragraph that I have quoted, and which with the background of thirty years experience in negotiating and carrying contracts for future delivery for others, about ten years experience as a governor and president of the Board of Trade Clearing Corporation, and as a member of the Business Conduct Committee, and other committees of the Board of Trade over a period of about ten years, I shall analyze from my viewpoint:

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 28, 1936.

1. *To maintain a Commercial Exchange*—This clearly indicates the intent of an exchange or market place where the varied interests of commerce may carry on their functions in an orderly, economical and expeditious manner.

2. *To promote uniformity in the customs and usages of merchants*—Here is indicated the intent to set up by rules and means for their enforcement, a set of standards for determining the kinds, grades and values of commodities that shall be dealt in upon the exchange, so that buyer and seller may have definite assurance of a governing body that will enforce the fulfillment of contracts between members according to their terms as defined by Exchange Rules. These rules cover every phase of exchange marketing, and the obligations of members, including the quantity, the quality and the methods of delivery required on a contract for future delivery, the obligations of parties to the contract and all other pertinent conditions required in the fulfillment of a contract for future delivery.

3. *To inculcate principles of justice and equity in trade*—Here is displayed a high regard for the ethical and honorable conduct of business by the members of the Exchange, and through the years changing bodies of membership and succeeding Boards of Directors have so zealously preserved this tradition that it may be confidently stated that in no commercial activity is there a higher standard of business honor and business ethics than prevails in the transactions on our Commodity Exchanges.

4. *To facilitate the speedy adjustment of business disputes*—Here is defined the intent which the courts have upheld that the governing body of the Exchange shall, in the event of a disagreement between members as to the terms, conditions or faithful performance of an Exchange contract, have the power to hear the testimony of the members who are parties to the contract, and after such hearing to render a decision that shall be binding on both parties to the contract.

There is the further intent, also upheld by the courts, that the governing body shall have the power to discipline its members for infractions of the Exchange Rules, and such decision of discipline shall be binding on the member so disciplined.

This procedure insures in both instances prompt consideration and determination by men intimately and intelligently informed on the matters at issue, and a prompt and effective carrying out of the terms of their decisions. Thus, for many years, the much discussed system of commercial arbitration

has been effectively functioning in the Commodity Exchanges in a much broader way than its present proponents have in mind, for, in the Exchanges institutional discipline of members is enforced, as well as institutional adjudication of commercial disputes.

5. *To acquire and to disseminate valuable commercial and economic information*—This gives expression to the intent of gathering and disseminating, and supervising the gathering and dissemination of statistics and other valuable commercial information from sources as unbiased as may be possible, so that members and their clients may have intelligent and dependable information for their guidance in determining values.

6. *To secure to its members the benefits of cooperation in the furtherance of their legitimate pursuits*—This clause, I feel, displays the intelligent vision of the drafters of this entire paragraph of "Objects," for they undoubtedly visioned the future expansion of national and international commodity production and the consequent increasing need for centrally located and carefully regulated Commodity Exchanges, and realized that these could best be developed by the intelligent cooperation of their membership.

Justifying their vision, the rules of the Association during the past seventy-odd years have been supplemented and amended from time to time to conform to changing conditions, with the high ideals expressed in the original paragraph of "Objects" being the background for such changes. It is my unprejudiced belief that the markets of our carefully organized and carefully supervised Commodity Exchanges, including and representing in their membership producers, merchandisers, processors, banks, common carriers and professional and casual speculators can and do provide the means for a more accurate, unselfish and broadly stable determination of price levels than would be possible under any system that has as yet been suggested.

Thus far I have given what I consider to be the sound theories of the "Essentials of an Effective Futures Market" and I shall now touch briefly on the human elements and physical facilities that seem to me to be essential.

The creation and functioning of a modern Commodity Exchange futures market involves, first, the human element of a qualified membership; that is, a membership representing the best minds among the producers, merchandisers, processors and consumers of the commodities which are to be afforded a market, and the professional and casual speculators who are to par-

ticipate in the market, so that its rules and methods of operation may be intelligently constructed, enforced and revised as changing conditions may dictate.

Then there are the physical facilities that must be thoughtfully provided if the market is to efficiently function. The Exchange hall must be adequate in size and construction to accommodate the varied activities to be carried on within its walls. Careful consideration must be given to the lighting for the sample tables whereon are displayed samples of the various lots of actual commodities that are in the market for immediate sale each day, so that buyer and seller may determine quality to the best advantage, and it is essential that the commodities for which future contract markets are to be afforded shall be of themselves or under scientific carefully supervised warehousing, practically imperishable, and readily transportable and the establishment of and rules for supervision of such scientific warehouses should precede the trading in the futures contract market.

Adequate trading space must be provided for each of the various commodities to be dealt in; instant telephone communication service to the office of resident members and to the central telephone offices and telegraphic services to the other markets of the world must be located immediately adjacent to the trading areas, as speed is one of the essentials of commodity trading as conducted on a modern Exchange, due to the active competitive forces that make it necessary for those using future contracts as a basis of hedging operations to fix the basis of their future transactions quickly.

Sufficient offices must be provided for the executive and clerical staffs necessary for the institution's operation and government.

Assuming the creation of such an Exchange, with its qualified human elements and adequate physical facilities ready for service, what is the necessity for its being that will vitalize it into a going concern? Basically this may be said to be the fulfillment of a demand for the most economical and efficient of marketing machinery between producer and consumer. Producer to consumer contact was a fairly satisfactory marketing method when neighborhood production about equalled neighborhood consumption. But, with the creation of large neighborhood surpluses that must be marketed to distant consumers and that are in excess of immediate consumptive needs, direct marketing became economically impossible, and by evolution the futures contract system has as a marketing vehicle provided the most economical means of transferring producer surplus to consumer needs.

The function of speculation, which is one of the essential factors in an effective futures market, may be said to be the balance of purchasing power between the immediate buyer or seller and an ultimate buyer or seller. To make this more clear, let us suppose that a grain merchant having negotiated for the purchase of a parcel of grain, wishes to make a sale of a future contract to hedge his purchase and thereby protect fluctuative risk during the period that he requires to find a buyer for the parcel, and there is not at the same time in the market, another merchant, who, having negotiated the sale of a similar parcel of grain, wishes to make a purchase of a future contract to hedge his sale. In such a situation it is obvious that vexatious and costly delays would result had not the Commodity Exchange markets developed a function to bridge the interval between hedging buyers and hedging sellers. Speculation is the function that bridges this gap, but perhaps of greater importance is its bridging of the supply and demand interval from the congestion of supplies at harvest time through the crop year period of their consumption. Were it possible to have harvested in each of the twelve calendar months exactly the amount of one month's consumption, with no excess or deficit, speculation might cease to be an important factor in commodity marketing providing there was a place and time where buyers would meet sellers; but, the harvesting and heavy marketing of wheat in the United States come in the months of July, August and September, the harvesting and heavy marketing of corn in November, December and January, and other crops in similar short periods.

The resulting movement of farm commodities to markets is therefore at these periods very largely in excess of immediate actual consumption, and by taking the future contract hedging sales of merchants, against their daily purchases of farm commodities at these times, the speculator permits the crops to move at levels of values that could not be obtained without his functioning. In periods of short supplies the speculator may evaluate his opinion of potential supplies, and if price seems to him to have discounted the shortage, he may sell futures contracts, which action is designated as a "short sale." The purchasers of such sales of future contracts may be merchandisers or processors who are hedging their sales of or needs for actual grain, and thus a stabilizing influence is frequently afforded by the speculator in times of small as well as large supplies.

An unusually intelligent definition of hedging is given by Mr. W. Hustace Hubbard, in an article written by him for a booklet

issued by the New York Cotton Exchange in 1923. I quote "The proper definition for hedging is 'trade insurance carried on in such manner as to make a worldwide market for instantaneous buying and selling.' "

Speculative transactions, because of their large volume in comparison to crop volume, and because of their large volume in relation to the amount of the commodity actually handled as a commodity in a given market, have frequently been the subject of criticism, and many times such criticism has not been well informed and has resulted in proposed or actual action by legislative bodies. There have been periods, particularly in the southern cotton states, when laws were in existence that seriously hampered the free functioning of transactions for contracts for future delivery in those states, largely caused by the activities of the old-time "bucket shops" which have now been eliminated. Gradually, the disadvantage created by this type of law became apparent, and, in most, if not all of the states, the laws have been so modified as to permit brokers handling contracts for future delivery on the commodity markets, to conduct their business within these states. From time to time much legislation has been suggested or attempted on the subject of speculation, but despite criticism and actual and contemplated legislation, the futures contract market system has continued to function and receive producer and consumer support, which seems to me to evidence its efficiency and necessity.

Speculation in commodities has been characterized by some men to be gambling in commodities, and this I assert is not a fact. Rather, speculation is the assumption by one person of the risk from which another person wishes to be relieved. In a report prepared by the Commission headed by Sir Josiah Stamp, which investigated and approved the system of futures contracts in commodity marketing in Canada, reference was made to the "risk bearing classes," and I sincerely wish, in the interest of a clearer understanding of futures contract markets, that this terminology would supersede our use of the term "speculator." Surely, the group of individuals known as London Lloyds, who will underwrite the risks of loss of ships and ships' cargoes, the risk of postponement of a coronation, the risk that it may rain on the day of the Indianapolis auto races, and many other apparently hazardous risks, are not gamblers, but, rather, members of the "risk bearing classes" which in our vernacular are termed "speculators." The best definition of "speculation" that I have

read was given by Justice Holmes in a United States Supreme Court decision. I quote:

> People will endeavor to forecast the future and to make agreements according to their prophecy. Speculation of this kind by competent men is the self-adjustment of society to the probable. Its value is well known as a means of avoiding or mitigating catastrophies, equalizing prices, and providing for periods of want. It is true that the success of the strong induces imitation by the weak, and that incompetent persons bring themselves to ruin by undertaking to speculate in their turn. But legislatures and courts generally have recognized that the natural evolutions of a complex society are to be touched only with a very cautious hand, and that such coarse attempts at a remedy for the waste incident to every social function as a simple prohibition and laws to stop its being are harmful and vain.

The approach of legislative bodies to the problem of speculation has seemed frequently to me to be that speculation in commodities is an inborn human trait, and that the doors of the Exchanges are besieged by clamoring multitudes desiring to enter the markets, and critics quite overlook the fact that the development of the speculator in commodities dealt in on Exchanges requires intensive creative and educational effort, and after such efforts are exerted the decision of participation is wholly a voluntary one. The speculator will secure all of the information and qualified opinion that he can obtain upon the ponderables of a situation, and then make his decision as to whether the speculative risk is justified by his estimate of possible profit. In this calculation the speculator will frequently come to a conclusion on probabilities that persons of a nonspeculative type of mind would consider as in the realm of imponderables, such as possible future weather conditions, possible insect or plant disease damage, possible national or international requirements and buying power, and many other factors, but all of these, from his viewpoint, are ponderables. With these risks the speculator is accustomed to deal, but he becomes either a small participant or a nonparticipant when the situation presents what he considers to be imponderables.

In the last session of Congress there was enacted the Commodity Exchange Act, which, from a practical viewpoint, puts in the hands of the Secretary of Agriculture or a commission consisting of the Secretary of Agriculture, the Secretary of Commerce and the Attorney General certain controls of the Commodity Exchanges for many of our principal agricultural commodities, and certain controls of the users thereof, both member and nonmember. Power to license and revoke licenses of

those members engaged in the handling of contracts for future delivery, is given in the Act. Control of undue fluctuation of markets for contracts for future delivery is contemplated through the power given the commission to fix after hearings, the quantity of any one commodity that any one speculator may be long or short at any one time, and further, the amount of any one commodity that any one speculator may buy or sell on a given day. To an inexperienced person this might seem like reasonable regulation, but because of its human and legal elements it creates one of the imponderables that may cause a speculator to minimize or entirely avoid participation in the market, and it places upon the three cabinet officers to whom the power is delegated, a responsibility of which I am sure they must be deeply conscious, for upon the wisdom of their determinations depends whether or not future contract markets for many commodities will be permitted to have the liquidity essential to their efficient operation. What I am about to say should not in any way be construed as a criticism of the gentlemen to whom is allotted this difficult task, but it is my considered opinion that it would have been more prudent and more effective to have required the regulation of markets by the determinations of men within the markets who could fit self-regulation to changing conditions more expeditiously and possibly more effectively than can be done under the statute.

Within themselves the Commodity Exchanges through the years have evolved what I feel it is correct to term "voluntary self-regulation." By this I mean that there has been a continually growing understanding on the part of members of the exchanges that they must so serve the public and so conduct their relations with the public, that public approval will be secured. To this end Business Conduct Committees have been established in many of the principal exchanges, and year by year the scope of supervision and control of these committees has been expanded. For many years the Chicago Board of Trade has required that members doing business for others should at least twice each year file a questionnaire statement with its Business Conduct Committee. Starting with what was practically only a financial statement, this requirement has been expanded until now the questionnaire statement and answers to supplementary questions disclose to the auditors of the Business Conduct Committee, a graphic picture of the member's position, not only in the sense of ledger balance items, but also the volume of open in-

terest for customers, the member's own open interest, if any, the standing and volume of open transactions for accounts in deficit, if any, the volume and standing of accounts adequately margined, and much other information that will give the auditors a clear and graphic picture of the member's condition.

Careful analysis is made and charges against the member's capital are made for unsecured debit balances, for accounts in deficit when figured to the market, for accounts that are undermargined, and such other items as in the auditor's opinion warrant a deduction from capital for the sound determination of the member's net working capital. If the auditor's determination of net working capital reveals an amount that seems inadequate for the member's volume of business, the situation is brought to the attention of the Chairman of the Business Conduct Committee for his decision, and the Chairman, if he deems it necessary, may refer the situation to the entire Committee for their decision. In either event if the decision is that the member requires more working capital, he is ordered to supply it, and careful check is made to see that the order is complied with.

Insofar as members of the Board of Trade of the City of Chicago doing business for others are concerned, I do not believe if the requirements of the Business Conduct Committee are fully met there is any jeopardy to their customers or to the public from any normal event, provided that the questionnaire return they are required to make is truthfully and accurately compiled, and stern discipline should quickly follow the discovery of misrepresentation.

Also, the credit or marginal relations between the member and his customer have in many instances been a matter of self-regulation. Control of speculation without impairing the essential breadth and liquidity of markets has been a subject that has received the earnest attention of commodity exchange governing bodies and interested members for many years, and in some of the exchanges self-imposed regulation by fixed minimum marginal requirements have been in effect for some time.

In May of 1933, the Directors of the Board of Trade of the City of Chicago, promulgated Regulation 1818, which required that the members of the Board of Trade doing business for others, should require as a minimum margin not less than the requirements of the Board of Trade Clearing Corporation, which at that time were 2¢ per bushel for wheat, corn, rye and barley, and ½¢ per bushel for oats. In July of that year the Clearing House

raised its requirements on wheat, rye and barley to 3¢, and on oats at 1½¢, so under the new regulation these became the minimum margin requirements on that date.

On March 31, 1934, the Code of Fair Competition for Grain Exchanges became effective. Preceding this many months of discussion had ensued on the problem of regulation of speculation to be embodied in the Code, and defined marginal requirements were finally determined as the basis of control. The minimum marginal requirements for speculative transactions under the Code provisions were 10 per cent of the market price with hedging transactions exempted from the provision, but despite this Code exemption, the Chicago Board of Trade, of its own initiative, required that the minimum margin on hedging trades shall be the margin requirements of the Clearing Corporation. There was a lengthy provision for spreading trades, which I shall not take the time to analyze.

Supplementing the minimum 10 per cent of market price on speculative transactions, there was a further Code provision that on and after August 1, 1934, any one speculative position in excess of two million bushels in any one grain in any one market should be required to furnish a margin of 25 per cent of the market price on any amount in excess of two million bushels. The Code and the exchange regulations adopted under it provided much detail for the making effective of and the enforcement of its provisions.

When the Supreme Court decision rendered the Code ineffective, the margin provisions of the Code were carried on by the Chicago Board of Trade until October, 1935, when new rules and regulations were adopted. These provided that the minimum margin on speculative transactions should be not less than 150 per cent of the Clearing House requirements, and on spreading and hedging trades not less than the Clearing House requirements, and this basis is now in effect.

I am taking time to make this lengthy explanation to demonstrate that by self-regulation an earnest effort has been made to control speculation through required minimum margins and the functioning of Business Conduct Committees made effective by Exchange rules. It is my sincere opinion that as the self-regulation I have outlined progresses and expands in good faith, as I believe it will, the problem of market controls and public relations can be more efficiently and effectively solved by groups of men intimately informed of trade situations and varying needs, than can be done by inflexible statutes enacted by public bodies.

DISCUSSION BY H. S. IRWIN
COMMODITY EXCHANGE ADMINISTRATION

In discussing "The Essentials of an Effective Futures Market," I wish to call attention to a further essential, namely, the necessity that such a market shall render distinct and valuable services in connection with the marketing of the commodities traded. It is desirable that the physical facilities be adequate and that the business of trading in futures be profitable, but if the futures exchanges are to pull their weight in the boat as marketing agencies, it is imperative that they shall perform their marketing functions at least as well as, and preferably better than, those functions could be performed otherwise. These marketing functions constitute the primary reason, from a public viewpoint, for the existence of the exchanges and consequently should be counted as one of the essentials of an effective futures market.

The time available is far too short to permit a discussion of how the futures markets assist in the marketing of the commodities involved, but the main ways may be listed. Since they may differ slightly from one commodity to another, we may use wheat as an illustration. Trading in wheat futures facilitates wheat marketing in these ways:

1. It aids in price determination.
2. It contributes to the handling of the heavy after-harvest marketings.
3. It makes hedging possible.
4. It provides quotations suitable for wide dissemination.
5. It promotes the maintenance of price structure in tributary areas.
6. It permits arbitrage.
7. It makes a continuous market possible (within the sessions).
8. It results in a small transfer of ownership through deliveries.

Taken together, these functions have come to be of great importance in the marketing of wheat. Growers, dealers, processors, and even consumers have come to depend upon them to a greater degree than is generally recognized. Certainly, if trading in wheat futures should be discontinued suddenly the whole picture of wheat marketing would be changed violently unless a satisfactory substitute could be provided promptly. Substantially the same functions are performed for other commodities by trading in futures.

There is reason to believe, however, that the functions listed are not being performed with maximum efficiency so that the actual public value of the futures exchanges is materially less than might be inferred from the enumeration presented above. Various undesirable practices have grown up in the trading in futures, taken as a whole, which interfere with the proper discharge of those functions and reduce the net social value of the futures exchanges, just as weeds in a cornfield cut down the yield of corn. Without going into details, I may mention some remaining manipulative practices, such as "squeezes," together with a tendency toward unduly wide price fluctuations.

At this point it would be unfair not to state definitely that conditions at present are much better than they were a number of years back. For example, the corners which were common fifty years ago have disappeared some time since and there is a growing exchange sentiment against the

squeezes which are not nearly so damaging as corners were. Similar improvements have been made along other lines. Yet it must be borne in mind that the real question here is not merely the qualitative one of improvement in conditions on the exchanges, but the quantitative one of whether or not the rate of improvement has kept pace with similar improvements in other lines of business.

In the second place I wish to take up the questions raised by Mr. Lindley concerning the possible limits on speculative holdings and trading. There is much to be said for his view but it should also be mentioned that there were reasons for handling those matters by law.

The possible limits on speculative holdings and daily trading have a two-fold basis. At a few times the holdings by one individual have been very large. Twice one trader has controlled a tenth or more of the aggregate of the contracts open. Such large holdings open the way to manipulation of the market and they render the market unduly dependent upon the personal fortunes of one or more traders since the death of that man or a sudden need for funds, perhaps resulting from calls for margins on stock holdings, might easily result in market flurries if other conditions favored such a result.

Further, it should be noted that somewhat similar restrictions have long been common in the somewhat analogous field of banking. Broadly speaking, a national bank cannot loan much more than one per cent of its total assets to any one person. The law provides that, with certain exceptions, such a bank may not loan more than ten per cent of its combined capital and surplus to any person and at the end of June the capital and surplus made up only about one-tenth of the total assets of the national banks. The reason for this limitation in the banking field is obvious and there is reason to believe that reasonable limitations in the field of trading in futures will also be in the interests of the public.

Another point may also be mentioned. In connection with the maximum limits which may be placed upon speculative holdings and daily transactions, the fear was expressed that such limits might reduce the liquidity of the market. By liquidity is meant the ability to make or close out contracts quickly. As a rule it carries the connotation of an abundant volume of trading. Great stress is laid upon liquidity by most members of the trade although it may be noted that the demand for it comes from professional traders and some of the larger hedgers and from commission men and brokers to a greater extent than it does from the smaller speculators and hedgers scattered throughout the nation.

No doubt liquidity is desirable but the fact should not be overlooked that like most services it has a definite cost, particularly if a number of men devote their time to it. Some time ago a study of the trading in Chicago wheat futures indicated that approximately 70 per cent of the transactions were made and closed out within the same trading session. That is, only about three contracts out of ten were held open as long as four hours. Many of the other seven were held open only a few minutes or an hour or two.

Indications are that the proportion of in-and-out trading is still large although probably not quite so large as it was in that period. I am not in a position to say that there is now too much or too little of this trading, but I should like to leave the thought that the proper degree of liquidity is

something to be considered carefully from the standpoint of all the groups involved.

In conclusion, let me say that although I may differ with some other minor points brought out by Mr. Lindley, I am in substantial agreement with most of what he has brought out concerning the essentials of an effective futures market. Our main difference lies in the degree to which I feel that the public services rendered by the exchanges should be stressed. This does not mean at all that Mr. Lindley and many others in the futures exchanges are insensible to that need. Since the exchanges got under way there have been forward-looking men in them who have perceived it and who have labored against the opposition of others to increase the efficiency of the exchanges as marketing agencies.

Perhaps, though, I emphasize this point to a greater degree than they do because I have been in a position to see more clearly than they how the trading in futures affects the public interest. As you may know, the futures exchanges have not brought together the data on which such a view could be based. As a result, the effects of some of the practices which work against the public interest have not been discerned fully by even the ablest men in the trade. Not until this task was undertaken by governmental agencies was it possible to view the effects as a whole and of course those of us who are engaged in bringing together that information have to get the picture for ourselves some time before we are able to communicate it to others with adequate proof. As this information is made available from time to time and the results of various practices are presented I believe that a larger proportion of the exchange memberships will swing to the support of the constructive elements in cooperating with the government to suppress the practices which cut down the public value of the exchanges.

NEW DEVELOPMENTS IN AGRICULTURAL ECONOMICS EXTENSION WORK[1]

H. M. Dixon
Extension Service, U. S. Department of Agriculture

Extension work dealing with the teaching of principles underlying the organization and operation of a successful farm was started in a few states in 1911. Later as the work developed to meet the increasing complexity of the problems of agriculture new phases were added such as marketing, outlook information, credit, public problems and economic planning and the work extended to all the states and the Islands of Hawaii. New developments have been continuous but the present opportunities for expansion and coordination of our activities with those of others into a broad program of agricultural improvement far surpass any previous period.

During this period of development successive major problems occupied very prominent places in the economics extension program. We have noted successively major emphasis being placed on the development of farm management principles from information obtained through farm surveys and farm records. Later cooperative marketing and cooperative business organization were topics for major consideration. Then such fundamental issues as outlook, marketing facilities, land classification, agricultural credit, and similar basic problems were attacked. All of these problems experienced a period of intensive emphasis and then found a permanent place in the extension program.

More recently we have seen the problems of conservation of our agricultural resources and the place of the Federal Government, in assisting agriculture to organize itself more effectively, introduced into public thinking.

These current developments have been accelerated both by the adverse economic conditions affecting farming, and the production, marketing, land policy, monetary, and credit programs in operation for correcting maladjustments. As a result farmers are becoming more conscious of the adjustments needed in farm organization and operation, in marketing methods, and in the public problems closely related to agricultural welfare.

Not only have the changing conditions of the past few years called for more careful appraisal by farmers of economic prob-

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association at Chicago, Illinois, December 29, 1936.

lems affecting them as individuals but they have increased the need for more agricultural and economic planning in its broadest concepts. Take the problem of land use for example. There is now a deep seated interest in a more economic use of land and more recognition of the fact that instead of limitless agricultural resources we have an agricultural plant that has been rapidly deteriorating in many areas.

Another significant indication of the change taking place in basic thinking is a wider recognition of the relationships between individual and public interest. Should individuals be permitted to purchase and operate land in so-called submarginal areas? Should the Federal Government lend its aid in promoting adjustments in agriculture for the good of the industry and welfare of the nation when collective individual actions of farmers do not seem to be resulting in the best long-time use of the agricultural resources? These and numerous other problems of public concern are occupying a prominent place in the thinking of rural and urban dwellers alike. Thus we have a growing recognition that factors outside the control of any individual farmer may oftentimes be dominant in determining the financial success or failure of farmers in a given area.

The outcome of all this has been an intensified interest on the part of rural people in a sound program for agriculture. As a result of the new federal programs, interest in cooperative planning and the adoption of better farming practices has multiplied many fold. The necessity for better balanced farming systems to maintain soil fertility, adjust production to effective demand, and promote good land use on a national scale has become a part of the thinking and planning of more farmers than ever before.

This has focused greater attention on the study of the farm business as a unit and the inter-dependence of the various units comprising the nation's agriculture. It has also emphasized the need for a more widespread understanding of the economic situation pertaining to the major agricultural commodities in order that the most satisfactory policy for individual farmers and the nation as a whole may be developed. In order to meet these changed situations, extension economists are directing their attention to the development of a better understanding of the requirements for a satisfactory farm and home business in every area, the relationship of the individual farms to agriculture as an industry, and the relationship of agriculture to the welfare of the nation.

Economic Background and Planning

While all these changes and influences have been confronting farmers for some time, it is only in recent years that serious consideration has been given to those influences beyond the individual farmer's control and an effort made in a national way to direct such influences toward improving the farmer's income. We should not be content with merely adjusting to the situation that exists when we have at hand in many instances the knowledge, the ability, and the facilities for changing the situation itself. Neither should we be satisfied with programs that aim primarily at improving conditions during a given year when such problems as soil conservation, sound land use, development of market outlets and facilities, and stabilization of prices necessitate the development of a long-time agricultural policy and program.

As a further aid to such planning, a cooperative project was started by the Agricultural Adjustment Administration and the Extension Service in the fall of 1935. The central purpose of this project is to enable farm people to better plan and develop local policies and programs in line with local conditions and at the same time to fit them into the state, regional and national programs. It should promote a larger participation of farmers in the study of facts, the formulation of judgments, and in making recommendations concerning needed adjustments and the means of attaining them.

Last year active committees of representative farmers in over 2,400 counties considered the course of agricultural production in their counties. This first year, emphasis was placed on the effect a soil conservation and erosion control program, if put into operation, would have on agricultural production. For the coming year the county planning committees, in addition to rechecking their recommendations of the past winter, will devote increased attention to the consideration of sound, long-time agricultural and land use policies and programs for the various counties.

The value of these planning projects to extension work appears particularly significant. In the first place, a great amount of factual material, which already had been accumulated but which had not been assembled in usable form, was made available for and used by the county committees, county agents, and others. In the second place, certain states have tended to develop their extension programs around the findings of the county com-

mittees. This should be of benefit to extension, as well as other programs, to the extent that the county planning committees have succeeded in analyzing and directing attention to the significant problems for which solutions are needed. In the third place, the activities of the county agents and county planning committees in the program this past year have resulted in a greater coordination and use of statistical, economic and other background material, a knowledge of which is necessary if the problems which they see confronting the agriculture of their counties are to be solved.

Outlook and Other Timely Economic Information

While the planning project just discussed is outlook in a very fundamental sense, it does not overlook the fact that we have an established agriculture which must continue to operate from year to year at the same time that the longer-time adjustments are being made.

New developments in outlook work are largely a result of an expanded appreciation of the value of such work in its application to the individual farm and in its relation to the problems of major agricultural adjustments. A better understanding of both the underlying causative factors and the currently existing economic conditions enables farmers to more readily and more intelligently adjust their farm management practices to prevailing and probable future conditions. In turn this knowledge makes possible the development of sounder programs for agriculture which affect farmers collectively.

Despite the handicap of a rapidly shifting personnel in economics extension work, material gains have been made in the immediate past in expanding this type of educational activity with farmers. Many states are following the practice of holding special conferences for county agents to consider the current outlook situation and lay plans for outlook work. As county agents become more familiar with economic subject matter they are using it to a greater extent in their extension work, thereby reaching many more farmers than where dependence was placed almost entirely upon the state economics extension staff. There is also a wider participation of other subject matter specialists in extending economic information. This is encouraged by such activities as the holding of conferences for all subject matter specialists of the college in the preparation of the state outlook reports and similar cooperative action in such projects as county agricultural planning.

Each year is witnessing a wider dissemination of such information through more meetings, more and better types of publications and a wider use of the radio and the press. Also there has been some expansion in the number of outlook film strips prepared for the use of county agents. A few states have materially expanded their chart service in order to provide agents with locally adapted charts.

Organized extension schools for farmers, during which some of the major economic problems affecting agriculture are considered, are receiving considerable emphasis in a few states. Such schools, usually involving 3 to 5 successive meetings with a specified group, are proving to be an effective means of developing a working knowledge of some of the broader economic problems.

The Bureau of Agricultural Economics has recently expanded the number of its current releases bearing upon the economic situation pertaining to given commodities and has revised other releases in order that they may better meet the demands of state workers for timely and pertinent current outlook information.

All of these developments indicate a continued growing interest in outlook and other economic information and its dissemination to farmers in an effective manner.

Farm Management

One of the most significant developments in recent extension work is the growing tendency toward the adoption of the farm income point of view, or the acceptance of the whole farm as the logical unit around which the extension program should be built. The ultimate objective is, of course, the development of systems of farming which will make possible the maintenance of a satisfactory standard of living for the family, education of the children, and well planned schedules of work and recreation for all. To attain these ends the farm must provide an adequate income.

The farm accounts project continues to be one of the very effective means of promoting the adoption of more profitable farm organizations and farm management practices. Although not a new project, recent years have witnessed a very decided increase in the extent of this work being done by the extension forces. Extension reports indicate that this project has grown from a total of approximately 27 thousand farmer cooperators keeping general farm records in the period 1931 to 1933, to approximately 60 thousand in 1935. Preliminary reports indicate an even greater number in 1936.

More significant than the increase in the mere numbers of co-

operators is the fact that the knowledge attained through the study of such records is being used more and more in building programs in the counties. In several states continuous records over a period of years are providing a source of information regarding major problems affecting the farm business which has not been available until recently. Many demonstrations are now available showing the favorable results of record work on the earnings produced by the farm and an improved standard of living for the farm family. While these farm accounts are always valuable to the farmers keeping them, their total value is multiplied many fold when the knowledge gained from them is incorporated into an effective teaching program.

A logical result of this continued emphasis on farm records is a growing interest in farm budgets or the testing of alternative procedures based on knowledge gained from farm accounts. In farm management extension work in the next few years more attention will be given to the formulation of long-time farm management plans.

Among the developments in farm record work, given greater emphasis recently, may be listed the cooperative projects between the farm management workers and the Dairy Herd Improvement Association workers wherein both types of records are kept on identical farms. This project phase gives promise of producing worthwhile results.

During the past two years there has been an expansion in the number of farm management service projects sponsored by some of the state extension services. There is also an increasing interest in joint farm and home management demonstrations. Both the keeping of family accounts and the use of economic information by home demonstration workers are rapidly assuming an important place in their programs.

Enterprise accounts kept by farmers and used as a means of measuring the results of cultural and management practices have also taken on greater significance with the new programs. Enterprise cost accounts in a number of states are now being conducted as a joint project of the farm management and commodity specialists. In some instances the commodity specialist assumes most of the responsibility for follow-up and joint responsibility in analysis and interpretations.

The attached quotation illustrates a means being used by one state in getting more of the forward view in farm management work.

"*Ability of Corn-Belt Farms to Pay for a Good Standard of*

Living.—At each of seven county meetings of cooperators in the Farm Bureau Farm Management Service held during December 1935, the cost of various items entering into a good standard of living, including a modern home and a college education for about one third of the children, was discussed and a figure arrived at by each group. A study of the ten-year records indicates that about 60 per cent of the farms that have continued in the Farm Bureau-Farm Management Service during the past ten years have been operated on a basis such that the net income was sufficient to pay for the standard of living set up by these farm groups. The discussion and the study led to the realization on the part of the people attending these meetings that the inefficient farmer could not hope to make his farm pay well enough to provide such a standard of living for his family,—neither could the small-sized farm operated on any but an intensive basis provide for such a satisfactory standard of living.

"I believe that the plan of holding up before farm people, especially the younger farm men and women, the ideal of a conservatively good standard of living, and what such a standard of living will cost, will help many of them to see the necessity of doing more efficient work in the farm business in order to make the farm pay enough to provide for such a standard of living."

Credit

New impetus has been given to the development of extension work in the field of farm credit by the financial distress of a larger than usual number of farmers in recent years and the establishment of a coordinated federal farm financing agency in the Farm Credit Administration.

In many states the extension service took a very active part in developing debt adjustment work. Succeeding this emergency measure definite educational programs on sound agricultural credit were developed and carried out, many times in cooperation with officials of the Farm Credit Administration.

Numerous training schools for county agents are being held throughout the country to familiarize them with the agencies offering credit to farmers and the ways and means of assisting farmers to obtain such credit. For instance one state this year is giving to all county agents a special training school of four two-hour periods on farm finance by the regular college teacher in this field who has had recent experience with one of the credit agencies. One state has held two-day training schools on land

values, while another combined a consideration of credit problems and the long-time outlook in schools for county agents.

Likewise numerous meetings have been held with farmer groups where the principles of sound farm credit were considered. Several of these state credit programs included inventory and credit statement campaigns, which enlisted the cooperation of credit agencies in getting more farmers to keep the necessary records. One very successful plan used in some of the states has been to coordinate such teaching with the material presented at farm management summary schools. Another state is combining credit teaching with individual farm planning meetings at the farm. The farm financing problem is being made a part of the farm unit demonstration in many cases where these operators are carrying farm mortgages.

In a number of states definite attempts are being made to familiarize members of 4-H club groups with credit principles and credit problems, through the use of credit financing of their club project. Some work is being done by the extension economists with the officers of local production credit associations and national farm loan associations in order that these officials may be better informed concerning the economic factors underlying sound farm credit.

Although this line of economic extension work has increased in emphasis materially during recent months, much remains to be done.

Marketing

The marketing programs now being conducted, like the programs of other types of economic extension work, are characterized both by the expansion of those phases of the work which have proven desirable and by instituting new projects and programs to better fit local needs. Generally speaking, the work being done can be divided into two classifications: those activities which have to do with a general educational program and those programs directed toward benefiting producers indirectly through service to their cooperative organizations.

Under the first grouping are such activities as cooperative marketing schools for 4-H club members and other junior groups for the purpose of teaching the principles and practices of marketing with emphasis on cooperative marketing. Similar schools and discussion groups are being held with farmers for the purpose of clarifying the fundamentals of cooperation in marketing

in order that these leaders may give sound guidance to the development of future marketing endeavors.

Recently a few states have expanded this type of program to include a series of related lessons, taught by the discussion method, in which local marketing problems in their broader aspects are considered. In schools of this kind the specialist endeavors to present information and raise questions for discussion on such topics as the costs of distribution and services rendered in distributing farm products, the effect of supply and demand upon price, cost of production as a basis for price, and factors influencing farmer's price and net return. Also such matters as producer-consumer relationships, consumer characteristics, fallacies regarding marketing, advantages to be gained through cooperative action, as well as those things that cannot be accomplished through cooperation are discussed. In fact, these schools are short courses in the economics of distribution which begin with a consideration of the history of the shifts of production and marketing activities in the locality in which the school is being held, and end with a consideration of what the farmer can do, in the light of the problems discussed, in solving the marketing problems that confront him.

Those in attendance at these schools quickly come to realize the complexity of the economic problems with which they are dealing, and understand that their well-being depends neither entirely on the prices they receive for their products nor the economies they can bring about in the system of distribution, but also that cost of production, net income, and purchasing power are equally important, and to be considered.

Another type of school, which provides for a well-balanced consideration of most of the problems involved in one particular enterprise, is that in which the production and marketing extension specialists cooperate in a joint program pertaining to some one commodity. In these schools the production specialist analyzes the production problems involved, while the marketing specialist discusses the economics of producing and marketing the commodity.

Futher educational work of a more specific nature includes the following: (1) Conducting tours to produce the livestock markets for the purpose of acquainting producers with certain marketing problems of significance to them; (2) Rendering assistance and guidance in connection with the establishment and operation of marketing agreements for fruits and vegetables and fluid milk; (3) Assisting in the development of regional produce mar-

kets and adequate terminal facilities; (4) Conducting market surveys for the purpose of determining the facts necessary for an intelligent attack on marketing problems; (5) Furnishing market and price information to groups of farmers to assist them in marketing their products to better advantage; (6) Developing a better understanding of market grades and standards.

The work being done by marketing specialists which falls into the second classification, or centers around cooperative organization, is two-fold. First, assisting new cooperatives regarding organization and operation problems. Second, assisting in the reorganizing of old associations, in developing better financing plans, and aiding in effecting economies in the management and operation of such organizations.

Continued effort is being expended in developing and installing adequate systems of records and accounts adaptable to the cooperative type of organization. Many business analyses are under way for the purpose of determining the sources of unnecessary losses and for assistance to boards of directors and managers in the more efficient methods of operating cooperative business organizations.

Marketing specialists in a number of the states are also working closely with the state and county cooperative councils and are assisting them in conducting educational programs pertaining to sound policies to be followed in the field of cooperation. Undoubtedly, the guidance and assistance given by extension specialists in the field of cooperation is one of the factors resulting in the more efficient operation of cooperatives, greater emphasis on merchandising products on the basis of quality and value, and in bringing about a sounder philosophy expressed by cooperative leaders.

In summary, the developments in agricultural economics extension work during recent years have been both numerous and broad in scope. Much, however, still remains to be done. With the changes in economic thinking among farmers and the new impetus added through recent legislation growing out of the depression have come new obligations to the field of economic extension. These obligations furnish greater opportunities for assisting farmers in their business of obtaining a higher standard of living on the farm. Extension workers throughout the country have taken advantage of the opportunities afforded in a very commendable way and the results being attained are quite gratifying.

Progress will continue to be based on the further adaptation

and coordination of our activities to conditions and probable future trends, to the use of the newest materials and research available and through the use of the best experience in educational methods.

DISCUSSION BY L. G. ALLBAUGH
IOWA STATE COLLEGE

The previous speaker has very ably presented a brief summary of the historical development of our agricultural economics extension work. This summary started with the farm management surveys and carried through the cost accounts period into the marketing phase with special emphasis upon cooperative marketing organizations. The outlook work started during this period and was naturally followed during the depression by the general economics education program on credit, monetary policies, taxation and production control. At the present time our program also includes a large amount of land use planning on the basis of soil conservation.

In his paper, Mr. Dixon has taken us from the lowly manger, where agricultural economics extension work consisted largely of a study of farm practices in the production fields of agronomy and animal husbandry, to that exalted but precarious position of a lightning arrestor, viz., to assist these same production specialists in deciding which practices are not only economically sound but sound from a general welfare viewpoint. He has taken agricultural economics from a subsection of agronomy and made it a director and coordinator of the various production fields.

Proceeding from the barn to the house with our simile, he has led us in twenty years from cellar to garret,—from the cellar of *individual* economics, viz., the maximum utilization of the farmer's own resources for his own highest net income—to the garret of *group* economics, viz., the proper (welfare) use of our land resources. Continuing the simile he has explored many rooms on each floor as the house was erected on this cellar foundation of farm management.

It is the purpose of this paper to give a slightly different emphasis to some of these rooms and perhaps to describe additional rooms which for one reason or another he failed to mention.

Coordination and cooperation will be the watchwords for our field during the next decade. We have proven ourselves. We must now accept our responsibilities. Consequently, much more emphasis might have been placed on the role of agricultural economics as a coordinator *of* (not with) the physical sciences in our everyday economy. Probably the greatest benefit of the County Agricultural Planning project was the necessary cooperation of agronomy, animal husbandry and economics extension and research work in studying the common problem. A continuance of this project would do much to give us a well-balanced extension program and dispel many of the individual misunderstandings of differently trained specialists.

And while coordination is being discussed, it should be remembered that in some cases it may be the place of the economist to act as coordinator but in other instances to be a cooperator. From a price and value viewpoint agricultural economics has a grave responsibility to coordinate

production practices. But when the general welfare is being considered, economics must assume the role of cooperator—with the sociogist, the psychologist and others assisting in the solution of welfare problems. A current example of where economics needs to cooperate in the study of a particular problem is in the field of farm tenancy. It seems doubtful that farm tenancy problems can be solved in the field of economics, alone.

Another important omission in the paper just presented is the fact that the recent depression has given the farmers a new background and new concepts with which to consider and attack their economic problems. Our "economic jargon" has become a part of the "farm lingo," and farm problems will receive more economic consideration than previously. No longer are farmers averse to making rather important changes in their economic institutions. Old institutions and practices are not as fixed as previously.

For instance, the marketing specialists face rather rapid changes in institutional set-ups. As an example, take the rapid decline in cooperative shipping associations in the corn belt during the past decade. The development of truck transportation, crop control and changed cropping systems resulting from soil conservation programs is now bringing a somewhat similar problem to the cooperative elevators of the corn belt. Will farmers make the necessary changes in organization and financing to protect this community investment? Is it economically sound for the farmers to attempt to maintain this institution? Will this production marketing cooperative gradually shift the emphasis so that it will become a consumer purchasing cooperative?

Some emphasis might have been placed on the wider dissemination of economic information and discussion of economic topics with farmers and farm boys by the Smith-Hughes vocational teachers in addition to the regular extension specialists and county agents. A widespread development of economic leaders of this type should do much to decrease the economic illiteracy of many agricultural communities.

Also, greater emphasis might have been placed on the increased use of county agents and various commodity specialists to discuss commodity economics in farm meetings. As this phase of the economics work is taken over by county agents and the production specialists, there will be less opportunity to work at cross-purposes with production specialists. And, in turn the economists will then find it possible and desirable to devote a greater portion of there time to the study and development of other important phases of our economics extension program.

As I enumerate these phases it will become readily apparent to what extent there is already adequate research and to what extent further research would be necessary to make it possible to carry out a successful extension project on each of these. With more time or more personnel made available these additional phases of an agricultural economics extension project might be developed:

1. Further coordinate production practices from the viewpoint of the price economy.
2. Evaluate new developments in marketing, production economics, and general policies as affecting agriculture.
3. Broaden the extension marketing field to include more information

on the marketing problems of the individual farmer, viz., attack the marketing problem from the viewpoint of what is good for the farm producer (increasing his net income) rather than what is good for some marketing organization, cooperative or otherwise. This may mean the shifting of market grades and techniques to the production specialists as previously suggested for outlook work. This will make possible a greater use of marketing specialists as economic advisers when new cooperative organizations are being considered or formed and less as "trouble shooters" for cooperatives already in financial difficulties.

4. Provide more fundamental price information of a regional and local nature to assist in the application of current outlook material.

5. Develop the land economics and land tenure fields. The fundamental farm tenancy problems are continuous and not a depression phenomena. A cooperative study of these problems with sociologists is necessary and desirable.

6. Study taxation problems—as to the incidence of various types of taxes and their relative efficiency in periods of depression and prosperity. So far discussions have largely been in the field of politics.

7. Present outlook and general economics discussions to city groups of business men, service clubs, etc., upon whose education, understanding and sympathy the farmers' success in political activities already depends.

8. Give greater emphasis to the long-time outlook and its problems.

9. Increase the emphasis on securing facts and figures from farm and home records as a means of *making* or *securing* both short-time and long-time loans based on income as well as net worth and land productivity. These records will serve as the basis of individual farm budgets and farm financial programs.

10. Study the financial problems (of farm and home) and the financial programs of farm people in order to develop farm family financing principles in regard to: (a) sound financial programs, (b) investment policies involving land purchase, life insurance, stocks and bonds purchases, etc., (c) proper credit expansion and contraction in light of the business cycle, (d) relative flexibility of various types of capital outlays.

11. Develop a coordinated financing plan for the farm and home—rather than continue present emphasis upon various types of cooperative credit for different kinds of loans.

12. Use farm management cooperators to present farm management results to other farmers in township and other meetings.

13. Cooperate with rural resettlement workers in studying and assisting the "far below" average type of farmer in solving his farm management problems.

14. Place more emphasis upon the differentiation between "money income" and "real income."

15. And last and most important of all, coordinate the fields of production economics, marketing economics, and consumer economics (home management) with sociology for the goal of higher living standards.

In conclusion there are many other unexplored rooms in this agricultural economics extension house, but if this discussion has helped you to get a more concrete picture of the tremendous size of the framework built for the agricultural economics extension program during the next several years, it will have served its purpose.

USE AND POSSIBILITIES OF THE COUNTY AGRICULTURAL PLANNING PROJECT IN OHIO IN DEVELOPING PROGRAMS AND POLICIES[1]

GUY W. MILLER
OHIO STATE UNIVERSITY

The county agricultural planning project was carried on in most of the states during the year of 1936. The next steps have been set up and plans are now being put into action for further work in 1937. It is my intention to give a short explanation of the project in Ohio and indicate some of its possibilities in developing programs and policies.

In general, the project called for the judgment of farmer committees on the two following questions:

2A. What would be the probable production of the various farm products in 1936, assuming normal weather condition, present farm practices, prospective prices, but *without either production or marketing control programs?*

2B. What would be the probable production of the various farm products in 1936, assuming normal weather and prospective prices, but without either production or marketing control, and *if farm practices were adjusted to maintain soil fertility and control erosion?*

Plans for 1937 call for a revision of Question 2B and goals that may be reached in 1938. In order to get some idea of the way this program was developed in Ohio, a short statement of methods and procedures employed is herewith given. The personnel of the state committee in charge of the work was composed of four representatives from the Extension office, two from Agronomy, and one each from Animal Husbandry, and Farm Management. Serving as ex-officio members were the Director of Extension and the chairman of the Rural Economics Department, who was also chairman of the Regional Adjustment committee.

The general plan followed in carrying this project to county agents and county committees was to furnish all the available statistical material for each county relative to soils, crops, livestock numbers and production for past years, for 1935, and estimates for 1936. The long-time studies of crop acreage yields and production from assessors' figures back to 1850 were also made available to counties. With this material available it was up to the county workers to make the application to their particular county.

[1] This paper was read at the Twenty-seventh Annual Meeting of the American Farm Economic Association, Chicago, Illinois, December 29, 1936.

Six all day conferences were held in as many points in the state for giving the information concerning the program to the county agents. This series of conferences was followed in about a month with the first "follow up" meetings, at which were presented additional statistical and agronomic material and suggested procedure for developing the project. These meetings comprised smaller groups in which more individual help was made available. Most of the workers attended a second "follow up" conference held about a month later when nearly all the material was available for all the counties.

The subject matter specialists worked in the various areas of the state, met the county agents regularly, and either helped in the committee meetings or assisted the agent in preparing for the meeting of the committee. Twenty-two representatives of the extension personnel at the State College assisted the county agents and county committees in developing the local program. There were six members from the Farm Management Division of the Rural Economics Department, four each from the Extension Office and Agronomy Department, three each from the Agricultural Adjustment Office, and Animal Husbandry Department, and two from the Land Use Planning Section, Land Utilization Division, Rural Resettlement Administration. The project furnished opportunity for participation by these several departments of the Extension Service and Agricultural College.

Considerable leeway was given to the county agent in setting up these planning committees. In western Ohio where AAA programs had the greatest participation, the various AAA commodity groups were represented, as well as the other types of farming in the county. In some counties various organizations chose representatives, but in the majority of the counties, the county agent selected the members. In all cases care was exercised to see that the committee represented all the farming interests of the county, as well as the leading agricultural organizations. In practically all instances the person selected received a letter of appointment from the Director of Extension.

A smaller committee was either elected by the county committee or in some cases appointed by the county agent, at the suggestion of the county committee. This "working committee" of three to eight members had the responsibility of going over the data and preparing answers to the two questions mentioned earlier, for the approval or modification by the county committee at its next meeting.

Method Used in Answering Question 2B

The answers to Question 2A obviously could be arrived at by the judgment of the county committee on past participation in adjustment programs and the effect on farmers if such programs were discontinued. However, some basis of approach was necessary if the answer to Question 2B was to be arrived at in any scientific method. The Department of Agronomy of the Ohio Experiment Station and Ohio State University worked out a plan for arriving at a *soil productivity* balance based on the nature of crops grown. To each crop was assigned a mathematical factor called a "soil productivity index," expressing the percentage rate by which that crop influences soil productivity. The indices, either negative or positive, depend on the productive capacity of the soil. These indices represent the relative out-go and in-put contributed by a single year's crop.

TABLE 1. SOIL PRODUCTIVITY INDEXES FOR INDIVIDUAL CROPS IN OHIO[1]

Crops	Soil Productivity Index (Points in Per cent)
Corn	—2.0
Potatoes, tobacco, sugar beets	—2.0
Oats, wheat, barley, rye, buckwheat	—1.0
Soybeans—Hay	—0.5
Seed—straw and leaves left on field	0.0
Timothy and other grass sods	0.0
Red and alsike clovers	+2.0
Alfalfa (1 year)	+2.5
Alfalfa (2 years or more)	+3.0 (total)
Mixed meadows	According to type of sod*
Sweet clover (green manure)	+2.5
Rotation pastures	According to type of sod*

Additions to or subtractions from these indexes are also made to account for the use of manures, fertilizers, and the degree of erosion.

* A weighted index is calculated from the estimated percentages of different plants in the herbage.

[1] Bul. 175, Agricultural Extension Service, The Ohio State University.

A Standard Set of Productivity Indices

The indices are based on the complex of processes—stock of organic matter and nitrogen, tilth and biologic tone—that contribute to soil deterioration or up-building over a long-time period. The intertilled crops are given a negative factor of —2 per cent, indicating that each time one of these crops is grown there is a loss of about 2 per cent in the productive capacity of the soil. Cropping to small grains, being about one half as destructive is given a factor of —1 per cent. On the same basis, biennial and perennial legumes all have positive factors. For red clover, this is +2 per cent. These indices appear in the accompanying table.

Adjustments for Manure and Fertilizer

Treating land with manure necessitates modifying the foregoing productivity indices. By reason of adding organic matter and of the heavier root and top residues resulting from larger crops, the use of manure warrants lowering the negative factors and raising the positive ones. Similar credit is due for fertilized usage merely, however, because of the larger root volume and crop residue produced. One ton of manure and 200 pounds of average commercial fertilizer, each improve the standard productivity factor by approximately the same per cent. Credit for these modifiers is varied by counties in relation to the amount of fertilizer purchased and manure produced from the livestock enterprises.

Adjustment for Erosion

Adjustment for the destructive effect of erosion is an integral part of the soil conservation problem. Each soil type was arranged on an erosion scale and the corresponding rate of erosion expressed by a productivity index. Unlike exposures of soil surface permitted by row-crops, by drilled crops, and by sod crops were treated as modifiers of the basic rate of erosion.

Calculating the Soil Productivity Balance

In appraising a given cropping system, whether for an individual farm, or collectively for a county for the year of 1929 or of 1934, the crop indices were weighted for acreage of the respective crops. The resulting algebraic figure represented the productivity balance, or rate at which the land resources of the county were losing or gaining on a scale whose *zero point* is true conservation balance. The aim in answering Question 2B was to so shift the cropping system of a given county from 1929 or 1934, that this true soil conservation balance was attained after proper allowance for erosion losses and retirement of very erosive land from the rotated area. After the cropping pattern was set up for the county, the committees then adjusted the livestock enterprises on the basis of feed supplies and pasture available and made some calculations as to the effect on income.

This formula method was used by committees in answering Question 2B. The county reports when added together, gave the pattern for Ohio as a whole.

The reaction of farmers was almost universally favorable to

TABLE 2. LAND UTILIZATION IN OHIO FOR 1929, 1934 AND UNDER QUESTION 2B (SOIL CONSERVATION BALANCE), WITH PERCENTAGE COMPARISONS

	Census 1929 (000 A)	Census 1934 (000 A)	Soil Conservation Balance (Question 2B) (000 A)	Per cent change from 1929	Per cent change from 1934
1. Land in farms, total	21,514	22,858	22,127	+ 2.8	— 3.2
2. Crop land harvested	10,116	10,384	10,172	+ 0.6	— 2.0
3. Pasture, total	8,038	8,838	8,462	+ 5.3	— 4.3
4. Pasture, rotation	1,192	1,273	1,443	+21.1	+13.4
5. *Soil depleting crops	8,120	8,200	7,286	—10.3	—11.1
6. *Soil conserving hays	2,532	2,622	3,108	+22.7	+18.5
7. Corn, all purpose, harvested	3,473	3,317	2,959	—14.8	—10.8
8. Other intertilled crops	265	349	343	+29.4	— 1.7
9. All wheat, harvested	1,564	1,994	1,854	+18.5	— 7.0
10. **Small grains, harvested	3,383	3,519	3,234	— 4.4	— 8.1
11. Hay harvested, total	2,625	2,847	3,219	+22.6	+13.1

* Basis of 1936 Federal Agricultural Conservation Program, idle and fallow land included as Soil Depleting.

** Includes wheat, oats, rye, barley, buckwheat, mixed grains, and soybeans for seed.

the project. The soil productivity balance idea as worked out for 2B was particularly appealing. They also felt that they derived much information about the agriculture of their county of which they were previously unaware. A better knowledge of soil types, erosion losses, manure and fertilizer values, numbers and production of livestock, and acreage and production of crops helped those who were later chosen to work with the Agricultural Conservation Program.

Such a method of definitely measuring any cropping system, in terms of long-time land use, whether for a farm, soil type area, county or state has broad possibilities for various types of work. First, using the county as a unit, what are the possibilities in this method for developing policies and programs? Committee action in setting up a cropping pattern that will maintain soil productivity might lead directly into the educational approach of ways and means of arriving at such a goal. It involves, *first,* land retirement and decisions on areas to be retired in some sections. This in turn presents to the committee the problem of zoning, or state or federal purchase of areas to be retired. *Second,* the cropping pattern may call for smaller acreage of cultivated crops, larger areas in hay and rotation pasture, and better quality of hay or restorative crops. A shift to greater legume acreage may call for a program of liming with committees able to set up definite tonnages of lime and fertilizer necessary to meet such a legume program. This leads further to knowledge by the committee and others of the relative needs of lime by different soil types of the county. *Third,* changes in the cropping pattern of the county naturally would call for some revisions in methods of livestock feeding or

changes in the composition of the livestock of the county. *Fourth,* the end production of the cropping pattern would be sufficient crops, livestock and livestock products for sale that volume would not be reduced beyond the point where the individual farms could be efficiently operated and income maintained. The whole soil conservation idea might well develop for a county into a definite pro-

TABLE III

COUNTY *Wyandot* YEAR *1934* COUNTY AGRICULTURAL PLANNING

TABLE FOR CALCULATING SOIL PRODUCTIVITY BALANCE

(1)	Acres (2)	Acres (3)	Rotated acreage per cent (4)	Productivity factor (5)	Productivity effect (6) Positive	Productivity effect (7) Negative
a) Corn, all purposes		42,649	26.72	−1.8	x x x	.4810
b) Potatoes	745					
Vegetables for sale	75	869	.54	−2.0	x x x	.0011
Tobacco	—					
Sugar beets	49					
c) Wheat	35,536	36,025	22.57	− .8	x x x	.1806
Rye	489					
d) Buckwheat	128					
Oats	18,659	19,078	11.95	− .7	x x x	.0837
Barley	203					
Mixed grains not separated	88					
e) Soybeans for seed		3,000	1.88	+ .2	.0038	x x x
*f) Total hay crops		42,062	26.35	+ .84	.2213	x x x
g) Estimated rotated pasture		15,957	9.99	+ .84	.0839	x x x
h) Total rotated area (a to g)		159,640	100%	x x x	x x x	x x x
i) Estimated green manure						x x x
j) Gain in productivity due to restorative crops, per cent					.3090	x x x
I Loss in productivity due to destructive crops, per cent					x x x	.7464
II Loss in productivity due to erosion, per cent					x x x	.1200 .8664
III Annual Net SOIL PRODUCTIVITY BALANCE						−.5574

*Analysis of hay crops	Acres	% total	Productivity factor	Productivity factor times % total hay	
f_1 Alfalfa	1,775	4.22	+3.4	+.1435	
Red and alsike	3,703				
Sweet	86				
f_2 Clovers, total	3,789	9.01	+2.3	+.2072	
f_3 Clover—timothy	20,737	49.30	+ .9	+.4437	
Timothy	12,590				
Small grain hay	147				
Other tame and wild	245				
Sorghum forage	7				
f_4 Total	12,989	30.88	+ .2	+.0618	
f_5 Soybeans for hay	2,772	6.59	− .3		−.0198
(f) Total hay (f_1 to f_5)	42,062	100%		+.8562	−.0198
Weighted hay factor				+.8364	

gram in which most of the subject-matter specialists could work together with county workers and committees toward a common end when once set up.

The work of a committee in a typical Ohio county is shown in Table 3, the cropping pattern in 1934, and in Table 4 as changed in order to maintain soil productivity and control erosion.

TABLE IV

COUNTY *Wyandot* YEAR *1936, 2B* COUNTY AGRICULTURAL PLANNING

TABLE FOR CALCULATING SOIL PRODUCTIVITY BALANCE

(1)	Acres (2)	Acres (3)	Rotated acreage per cent (4)	Productivity factor (5)	Productivity effect (6) Positive	Productivity effect (7) Negative
a) Corn, all purposes		36,717	22.99	−1.8	x x x	.4138
g) Potatoes	730					
Vegetables for sale	70	849	.53	−2.0	x x x	.0106
Tobacco	—					
Sugar beets	49					
c) Wheat	25,042					
Rye	480	25,522	15.98	− .8	x x x	.1278
d) Buckwheat	130					
Oats	16,312	16,732	10.47	− .7	x x x	.0733
Barley	200					
Mixed grains not separated	90					
e) Soybeans for seed		7,982	5.00	+ .2	.0100	x x x
*f) Total hay crops		49,588	31.04	+1.62	.5028	x x x
g) Estimated rotated pasture		22,350	13.99	+1.62	.2266	x x x
h) Total rotated area (a to g)		159,740	100%	x x x	x x x	x x x
i) Estimated green manure						x x x
j) Gain in productivity due to restorative crops, per cent					.7394	x x x
I Loss in productivity due to destructive crops, per cent					x x x	.6255
II Loss in productivity due to erosion, per cent					x x x	.1200 .7455
III Annual Net SOIL PRODUCTIVITY BALANCE						−.0061

*Analysis of hay crops	Acres	% total	Productivity factor	Productivity factor times % total hay	
f_1 Alfalfa	7,423	14.97	+3.4	+.5090	
Red and alsike	9,898				
Sweet	—				
f_2 Clovers, total	9,898	19.96	+2.3	+.4591	
f_3 Clover—timothy	14,846	29.94	+ .9	+.2695	
Timothy	4,949				
Small grain hay	—				
Other tame and wild	100				
Total	5,049	10.18	+ .2	+.0204	
f_4 Timothy and alfalfa	10,392	20.96	+1.8	+.3773	
f_5 Soybeans for hay	1,980	3.99	− .3		−.0120
(f) Total hay (f_1 to f_5)	49,588	100%		+1.6353	−.0120
Weighted hay factor				+1.6233	

Whether the suggested shifts appear feasible some time in the future will be further studied by committees this winter in the light of information obtained from the 1935 work sheets and the 1936 measurements for the county in the federal agricultural conservation program and from other information available from individual farmers. Any program set up for the county as a whole must meet the needs of, or be applicable to, individual farms if it is to be put into practice generally.

The same method of analysis as used in the county is as readily applicable to individual farms as to the county, balanced as one large farm. The same productivity indices can be used and allowances made for fertilizer, lime and manure applied. This plan on individual farms was tried out by committeemen in 1936 and in some counties on as many as 100 farms. Further effort will be made along this line in the work during the winter. As a basis of further information on this project four townships were selected for a joint study between the Program Planning Division of the Agricultural Adjustment Administration, Bureau of Agricultural Economics, Soil Conservation Service and Departments of Rural

TABLE 5. DATA FROM FARM MANAGEMENT-SOIL CONSERVATION SURVEY
80 WYANDOT COUNTY FARMS GROUPED ACCORDING TO SOIL PRODUCTIVITY BALANCE

Number of farms	20	20	20	20
Annual productivity balance 1932-36	—.01	—.20	—.33	—.51
Yield index, 1933-35, per cent	110.4	100.4	90.0	94.9
Per cent of rotated area, 1932-36				
In corn	25.8	26.5	28.0	32.3
In wheat	21.7	22.7	26.4	26.0
In oats	5.9	4.1	5.1	6.7
In total depleting crops	55.4	55.7	61.3	66.0
In hay and rotation pasture	44.3	44.2	38.4	33.8
Per cent hay—timothy	38.7	52.4	47.1	50.6
Manure, equivalent, tons per rotated acre	2.0	1.7	1.5	1.2
Average size of farm, acres	155.8	140.7	129.5	107.1
Rotated acres per farm	120.5	115.6	100.5	85.4
Per cent rotated area, Crosby	50.9	46.7	43.4	44.0
Soil factor, unimproved	4.91	4.96	5.05	4.95
Pct. operated by owner or related tenant	98.3	82.5	80.4	70.2
Yields per acre, 1935				
Corn, bu.	61.9	55.8	52.0	52.8
Wheat, bu.	27.9	27.2	23.5	27.0
Oats, bu.	43.4	39.4	28.5	34.1
Animal units per farm, 1935	36.7	28.2	25.0	16.2
Animal units per 100 rotated acres	30.4	24.5	24.9	19.0
Hay fed per hay consuming A.U., tons	1.4	1.2	.9	.9
Per cent of receipts from livestock	83.0	77.7	62.1	49.9
Per cent of corn sold, 1935	1.8	4.9	16.7	41.3
Labor income per farm, 1935	$1621.	$1487.	$1109.	$916.
Labor income per acre	$ 10.40	$ 10.56	$ 8.57	$ 8.55

Economics and Agronomy of the Agricultural Experiment Station. Space will not permit an explanation of the details of the study. However, soil types in each field were classified, a labor income schedule taken and a productivity balance figured for

each farm. Some of the preliminary results of a grouping on the basis of soil productivity balance are given in Table 5.

Some significant things are brought out by a glance at this table. First, twenty farms were approximately in a soil productivity balance. Second, their index of yields and labor income averaged the highest of the four groups. Third, the per cent of the rotated area in hay and rotation pasture was a third more than the group farthest out of balance, and nearly the same as set up by the county committee in their 2B estimate for that county. Fourth, the group of farms in balance were extensive livestock farms, and sold practically no corn. Fifth, the system of farming adopted by the group lowest in productivity balance was about one fourth as destructive as if all the rotated area were planted to corn. Sixth, the first group of farms were high in income, not necessarily because they were in balance, but it is of interest that the two go along together.

Viewed in terms of future use in extension work there is need for extension workers to determine practices that will balance productivity and maintain income on the various types of farming in the state as well as on the various soil types. The soil productivity balance idea offers to extension workers a method to use on individual farms of all the various types in first ascertaining in one definite figure the status of the farm in productivity, erosion and land retirement; second, making changes in cropping and fertility practices; third, shifting livestock feeding practices or composition of the livestock; fourth, figuring the effect on volume of business and income. Such a procedure might well form a basis for the extension program in each soil type area or each type of farming in a soil type or several soil type areas or vice versa as is the case in many sections of Ohio. It can be the means of coordinating the extension programs in agronomy, animal husbandry, poultry, horticulture and even agricultural engineering as the power problem enters the picture from shifts in cropping systems. The work of other agencies such as Soil Conservation Service, C.C.C. Erosion Camps, and the Agricultural Conservation program can all contribute to the goal set up in the soil productivity balance idea.

The County Agricultural Planning project has helped in developing a goal for such a coordinated program on a county basis. There is need to revise the first effort and through work on individual farms bring the idea along where more farms and farmers

as well as agricultural workers see a goal ahead and work toward it.

DISCUSSION BY R. M. TURNER
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Desirable farm adjustments are based largely on comparative advantages in the production or marketing of farm products between one region and another competing region. Such adjustments are greatly influenced also by changes in soil fertility, changing costs, changing market demand, improved varieties, plant pest and insect infestation, mechanization in farming, relative farm incomes, tenancy, improved farm management, and other influences. Regional studies of the status of the present situation in a region and the analysis of these conditions with recommended shifts and adjustments by Experiment Stations and the United States Department of Agriculture have laid the foundation for the study and adaptation of such adjustments to the farming sections within the states.

As an illustration of one long-time shift in farming, Washington farmers made a definite recommendation affecting both soil erosion and the livestock industry. They concluded that more beef cattle can be raised and fed profitably on the wheat and general farms of the state. This conclusion was based mainly upon the following facts: (1) The shift from horses to tractors has released much feed such as hay and pasture, (2) beef cattle fit into the wheat farming set-up on account of present adequate fencing and seasonal labor requirements, (3) serious wind and water erosion is demanding plantings of permanent grass and legume seedings, making additional hay and pasture available, (4) a reduction of carrying capacity of adjacent national forests is being required, making heavier demands upon farm feeds, (5) surplus feed wheat can be utilized to good advantage, (6) beef cattle production has been fairly profitable for sideline herds on wheat farms over a period of years, and (7) Washington is a deficit beef producing state. Other possible adjustments are being weighed in a similar manner.

The next step in developing planning among local groups of farmers and for larger civil groups and regions is accomplished by further study and the setting of definite goals. For example, such goals might be set following a consideration of the practices necessary in a county to control water erosion. A farmer would have the choice of planting permanent grasses and alfalfa, biennial sweet clover, green manure crops of peas, winter wheat seeded in the spring, trashy fallow, strip plantings, and others. Farmers in such a county would determine in committees the acreage increase in such practices necessary to bring about the desired erosion control results, also which of the practices are most desirable and which should be discouraged. When these plans are weighed by mature judgment, farmers will take an advanced step in group farm management planning.

Definite acreage goals for principal crops will then be set by farmer committeemen. This method will also be followed through all the types of farming in the county by planning for crop production shifts and the utilization of the resulting production.

So far the county adjustment planning committees have been selected by the county agent on a very informal basis. These committees might be given more official recognition. If this is done, it seems desirable to make such committees separate from the committees working under the Soil Conservation and Domestic Allotment Act, although recognized by such organizations as the official county and state agricultural planning committees. Regardless of the type of organization used in a state, the principal work in this connection is to consider farm adjustments on a regional basis with farmers. When farmers consider facts available for their industry on a national, regional and local basis, they will be able to make wiser adjustments in regard to long-time planning.

NOTES

MIGRATION OF POPULATION AND THE FLOW OF FARM WEALTH

A survey was made of four townships in Whitman County, Washington, in 1931 and 1932 to try to discover to what extent there is a relationship between the migration of population and the flow of wealth to and from rural areas.

Of 241 farm operators living in the area at the time of the study, 204 or 84.6% reported that they had assets greater than obligations when they took up residence on the farms that they then occupied. Of these 204 operators with some net worth at the time of occupancy of their farms, 188 or 92.1% came from other farms and 16 or 7.9% from cities. The average amount of wealth per operator brought from other farms was $9,982, and from cities, $5,434. Of the total net worth of the 204 operators with some equity, 95.5% was held by persons coming from farms and only 4.5% by persons coming from cities. These proportional figures show that the great bulk of wealth held by operators coming to the four townships surveyed had its origin in farming communities and that there was very little transfer of wealth from urban to farming communities through migration.

The study showed the transfer of a considerable amount of wealth from farms to cities through the migration to cities of persons who had sold their farms in the four townships. Of 246 former owners for whom data were obtainable, 62 or 25.2% had moved to other farms and 184 or 74.8% had moved to cities, after selling their farms. Of the total sum received by the venders of these farm properties, 68.1% was received by persons moving to cities and 31.9% by persons moving to other farms. The average amount received by persons going to cities was $17,058, and by persons going to other farms, $23,756.

Data pertaining to the settlement of estates in the four townships during the ten-year period, 1921-1930, revealed a similarly directed flow of farm wealth from the country to cities. During this period, 115 persons inherited farm property in the four townships, of whom 92 or 80% resided in cities at the time of the settlement of the estates and 23 or 20% on farms. The persons living in cities received 82% of the total wealth inherited and those on farms, 18%. The average amount of wealth inherited by persons living in cities was $5,068 and by those living on farms, $2,071.

The study also showed that the greater proportion of land rentals paid by tenants went to landlords living in cities. The land under lease in the four townships for the crop year 1931-1932 was owned by 153 persons, of whom 104 or 68% were living in cities and 49 or 32% on farms. Landlords living in cities received 77.5% of rentals paid by tenants and those living on farms, 22.5%. The average amount received per landlord living in cities was $900, and per landlord living on farms, $553.[1]

The facts brought out in this very limited local survey bear out the theory of some of the agricultural economists and rural sociologists that

[1] For complete study, see bulletin 315, "Migration of Farm Population and the Flow of Farm Wealth," Washington Agricultural Experiment Station, Pullman, September, 1935.

one of the results of the migration of farm population to cities is the transfer of wealth from the farming communities to the cities. No doubt similar local studies will soon be made in other parts of the country that will throw further light on the relationship between farm migration and the flow of farm wealth.

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THE RESPONSE OF KANSAS FARMERS TO THE WHEAT ADJUSTMENT PROGRAM

In presenting any new program to farmers there is always risk involved. Will the farmers respond to the program in sufficient numbers to make the program successful? Many hazards confronted the 1933-35 wheat adjustment program. The general conditions in Kansas were relatively poor in 1933. Farmers were reluctant to venture into any type of program that might cost even a small amount in cash or products.

These Questions Needed Answers

Would the wheat farmers of Kansas bind themselves to a written contract for three years?

Could an organization be formed in a few months with local control in all the counties, or areas where wheat was grown?

Could the farmers control their own program or would there be friction between groups, which would tend to disrupt the efficiency of the organization?

Was the wheat program adapted to a sufficient number of Kansas farms to make the production control effective?

The possible effects of these factors on the program were all undetermined when the program was first presented.

The 1933-35 Wheat Adjustment Program was an attempt through the control of seeded acreage, to control wheat production to the point where the amount produced would meet domestic needs with a small amount for export. On July 1, 1933, there was a surplus in all other wheat exporting countries of the world and the farm price of wheat had been as low as 25 cents a bushel.

The base for the adjustment program was the seeded acreage on the farms in the United States during the three-year period, 1930-32. The portion of the three-year wheat acreage of the United States that was granted each state was known as the base acreage for the state. The portion of the state base acreage granted each county within the state was known as the county base acreage; that portion of the county's base acreage granted each farm was known as the base acreage of the contract or base acreage of the farm.

During the summer of 1933, farmers were offered domestic allotment contracts, based upon the wheat acreage seeded and the production harvested on each farm during the years 1930, 1931, and 1932.

For example, if the average wheat acreage seeded on a given farm was 100 acres during the years 1930-31-32, the farm was given a base acreage of 100 acres, subject to adjustment. If, on this same farm, the average annual production was 1,500 bushels, 810 bushels, or 54 per cent, was

estimated to be the share of the crop domestically consumed. The 810 bushels were termed the allotment of the farm. The contract stipulated that a payment of at least 28 cents would be paid per allotted bushel each year, for the years 1933-34-35. In this instance the adjusted payment would be at least $226.80 for each of the three years. All calculations of acreage or production were subject to adjustment; however, adjustments were not sufficient to materially affect the results.

The contract offered to wheat growers was flexible to the extent that the Secretary of Agriculture could vary the maximum wheat acreage permitted under contract from 80 to 100 per cent of the base granted, during the years 1934 and 1935. Payments were to be made during the years 1933, 1934, and 1935. The Secretary of Agriculture, Henry A. Wallace, announced that the maximum acreage permitted for the crop year 1934 would be 85 per cent of the base granted.

Contracts were offered only on those farms that produced wheat during all or any one of the base period years 1930, 1931, and 1932. The program was to be administered through community, county, or district associations organized by the Extension Service. The director of the Kansas Extension Service was given the responsibility of administering the program in Kansas. Members of the extension staff were designated as district supervisors, each district comprising six counties. In those counties without county agents, the community and county organizations for the administration of the wheat program were organized somewhat later. In 78 counties in Kansas where county agents were located, the county agents were given the immediate responsibility of organizing temporary organizations within their counties.

Immediately after the contracts were signed, community and county or district election meetings were held, establishing more permanent organizations.

During the wheat sign-up campaign, it was observed that some farmers signed contracts more readily than others. Upon further observation, it was found that those farmers who had a large percentage of their wheat land in wheat during the years 1930, 1931, and 1932 were inclined to sign contracts immediately while those farmers who had grown wheat only on a small percentage of their land during the same period were reluctant to sign or did not sign a contract. For example, a farmer who had 100 acres of land that would normally produce wheat profitably, had 70 or more acres of the land in wheat during the three-year period, 1930-31-32, would sign a wheat contract readily; whereas, if a farmer with similar land had grown but 50 acres or less of wheat on the acreage during the three-year period, that farmer was not inclinded to sign the adjustment contract.

For the purposes of this study, the greatest number of acres of wheat grown in a county in recent years was considered the potential wheat acreage. Stated differently, the potential wheat acreage in any county was the greatest acreage of wheat grown in any recent year.

Records on individual farms upon which comparisons could be made were not available; therefore, the study was made by using the county as a unit. The available data were sufficient to:

1. Secure the official base acreage of wheat granted each county for the 1933-35 wheat adjustment program.

2. Determine the greatest number of acres of wheat that had been grown in recent years in each county in Kansas. The acreage so determined was termed the potential acreage of the county.

3. Determine the percentage of the base acreage granted each county that was placed under the wheat adjustment contract for 1933-35.

4. Determine the percentage that the base acreage granted was of the potential acreage of each county in Kansas.

5. Determine the relationship between the per cent given as base, and the per cent of the base that was placed under contract.

6. Determine whether a linear or curvilinear regression line gave the better estimate of the per cent of sign-up when the percentage that the base was of the potential acreage was known.

The total base acreage granted Kansas for the 1933-35 wheat adjustment program was 13,522,417 acres and 12,307,733 acres, or 90.44 per cent, were placed under the wheat adjustment contract. The per cent of the base acreage granted that was placed under contract by counties varied from 13.7 per cent to 99.5 per cent.[1]

The greatest number of acres of wheat seeded in each county was calculated from the reports of the Kansas State Board of Agriculture, 1911 to 1934 inclusive. Records of seeded acreage prior to 1911 were not available.

The per cent of the potential acreage granted as base acreage by counties varied from 12.0 per cent to 97 per cent. The per cent the base was of the potential acreage was correlated with the per cent sign-up. Both linear and curvilinear relationships were calculated, the latter by graphic methods. The coefficient of correlation was found to be .914, which indicates that 83.56 per cent of the variation in the sign-up was accounted for by the linear regression. The index of correlation was .924, indicating that 85.41 per cent of the variation in sign-up was accounted for by the curvilinear relationship.

One county, Republic, showed an extreme variation from other counties. The wheat organization in this county got a later start than in the other counties in the state. Therefore, calculations were made using 104 counties as well as with all 105 counties in the state. The index of correlation with 104 counties was found to be .936, and the coefficient of determination was .873, indicating 87.30 per cent of the variation in sign-up could be accounted for by the per cent the base was of the potential acreage, or closely associated factors.

Summary and Conclusions

1. There was a close correlation between the acreage given as base, and the per cent of the eligible wheat land that was placed under contract in 1933-35.

2. Approximately 84 per cent or more of the success of the sign-up campaign was due to the applicability of the program to the farm, or closely associated factors.

3. From the data collected and the calculations made, it appears that the applicability of the wheat program was more important in accounting for county to county variations in sign-up than the methods used in presenting the program.

4. The yields per acre during the base period in eastern Kansas were higher than

[1] Kansas Extension Annual Report, 1934.

in western Kansas. The results indicate that within reasonable limits the amount of payment per acre did not materially affect the number of cooperating farmers.

5. A curvilinear regression line fitted the data better than a linear regression line and therefore gave a better estimate of the per cent of sign-up.

6. It does not appear probable that the percentage sign-up was greatly increased by allowing a base that was more than 80 per cent of the potential acreage. Even when the base acreage was between 70 per cent and 80 per cent of the potential its effect upon the percentage sign-up was not highly significant.

7. If the state is given a definite allotment, a distribution of this allotment so that the base acreage may reach approximately 80 per cent of the potential in each county may secure a sign-up of a higher percentage of the eligible wheat land than a distribution in which the base is near 100 per cent of the potential in some counties and ranges down to 50 per cent or less in others. However, other considerations may offset the advantage of a high sign-up.

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BOOK REVIEWS

Agricultural Credit—. Being a Study of Recent Developments in Agricultural Credit Administration in the United States of America, by Anwar Iqbal Qureshi. London: Sir Isaac Pitman and Sons, Ltd. 1936. Pp. xviii, 190. $2.50.

After a careful reading of this book the reviewer is forced to conclude that the book should not have been published in its present form. Although the author's objectives are excellent, the result of his labors fails on at least three counts to equal the expectations suggested by the introduction and preface.

In the first place, the volume is marred by numerous errors of fact, misstatement, and faulty reference—most of them apparently arising from carelessness or from absence of a systematic reference check. Figures appearing on page 69, for example, place outstanding Federal Land bank loans at one billion dollars less than they actually were on the dates mentioned. The minimum prescribed capital of national agricultural credit corporations was $250,000, not $25,000 as given on page 101. The Federal Intermediate Credit banks sold debentures totalling $215,170,000 in 1932, not the much larger total given on page 115. The Cooperative Bank Commissioner, according to a statement on page 141, is responsible for the twelve regional agricultural credit corporations. This situation, however, has never existed. On page 23, the author quotes a passage from the article by Kemmerer entitled "Agricultural Credit in the United States." This passage was quoted by Kemmerer from a volume of the 12th Census, but is not so indicated in this book.

A second weakness lies in the organization of material and emphasis. The reader does not meet the Farm Credit Administration until next to the last chapter. All through the earlier sections the Federal Land banks, Federal Intermediate Credit banks, and Joint Stock Land banks are treated as of the close of 1932. This places, it would seem, an undue emphasis on a period already well covered by such works as those by Sparks, Lee, and Baird and Benner.* Moreover, the reader will find slight discussion of any credit agencies other than those sponsored by the Government. An effort is made, however, in the first chapter to cover the activities of all agencies prior to 1916.

The final point is the lack of originality apparent throughout the book. This shortcoming, of course, can be attributed directly to the limited time the author had to study agricultural finance in this country. To remedy such situations as this, it would appear desirable either to provide more time or to concentrate the effort on a narrower field of study.

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* History and Theory of Agricultural Credit in the United States—by E. S. Sparks, Crowell, New York, 1932.
Principles of Agricultural Credit—Virgil P. Lee, McGraw-Hill, New York, 1930.
Ten Years of Federal Intermediate Credits—Baird and Benner, Brookings Institution, Washington, D.C., 1933.

The Second United Order Among the Mormons, by Edward J. Allen, Columbia University Press. 1936. pp. 147. $2.25.

In a time when considerable importance is being directed toward economic planning, subsistence homesteads, share-the-wealth programs, revolving old age pensions, and other methods which have been proposed in the hope that they may correct some of the defects of the capitalistic system, it is of more than passing interest to review a part of the record of a group of people who sponsored certain social objectives in the Middlewest 100 years ago and who endeavored to revive these objectives in the Great Salt Lake Valley following the period of the Civil War. These historic pages from the records of the Mormon church are presented in a book, entitled The Second United Order Among the Mormons, written by Dr. Edward J. Allen and published by the Columbia University Press in 1936. This brief review can not expect to do much more than mention a few of the many suggestions which are included in this little book.

The religious doctrine of the Mormons commands the establishment of an economic order to effect a more equitable distribution of income, eliminate dire poverty, provide employment for all, and create an agency for centralized control and planning. Joseph Smith, the prophet founder of the Mormon church, was of course familiar with other social experiments which had been tried in this and in other countries. He is described as a man of great ingenuity and imaginativeness. He told his followers that he was guided by revelations which he received from God and the church was developed in accordance with these divine communications. The first United Order, or the Order of Enoch, was introduced in Kirkland, Ohio and Independence, Missouri, in 1831.

The principles of the first United Order as set forth in the various parts of the doctrines and covenants are given in this text as follows: "(1) The earth is the Lord's; (2) the people are stewards only over their possessions which are to be known as stewardships or inheritances, but each steward is to have a deed to his stewardship; (3) those who have surplus property, i.e., more than is required to provide a frugal living for the family, are to consecrate it by deed to the church for the benefit of the poor. Surplus production beyond family needs for each stewardship is to be turned over to the Bishop's Storehouse; (4) The Bishop is to apportion the inheritances among the people on the following bases: (a) equal according to their families; (b) equal according to their circumstances; (c) equal according to their wants and needs; (5) Those who are excommunicated from the church or leave it voluntarily are to keep the inheritance deeded to them but are not to receive back the surplus that has been deeded to the poor; (6) in other respects business relations are to be carried on in the usual manner under the competitive capitalistic system. Simplicity, frugality, cleanliness, industry, and honesty are enjoined."

It is reported that the Order did not last long enough to test its merits, nevertheless during its short existence certain weaknesses and elements of strength developed. In the first place, the movement failed to bring forth outstanding leaders. Furthermore, it is suggested that the leaders quarreled among themselves. Again, some of the leaders felt that Joseph Smith was seeking too much power. There was also doubt with regard to the ultimate disposition of the stewardship if the consecration and

surplus were to be disposed of by revelation through the leader of the group. Moreover, the Order offered greater inducements to the poor than to the more prosperous. The factors which assisted the leaders of the first United Order were (1) the cooperative spirit which developed in a pioneer, agrarian community; (2) the promotion of an intense religious zeal of the people; (3) comparative equality in temporal goods; (4) the incentive offered by the arrangement to each steward to increase his wealth and that of the community; (5) the centralized control and economic planning of economic life.

Mormon experiences from 1832 to 1846 included cruel persecution, repeated forced moving, rebuilding, and substantial losses in life and property. But these hardships seemed to increase the faith of the great majority and at the same time they served to make them more dependent upon the wisdom and ability of their leader, Brigham Young. Under his organization and administration the great exodus was planned and carried through to a successful conclusion. On April 6, 1847 a party of 148 people, under Young's direction, started west, and after more than three months of journeying through the desert the pioneer band reached the Great Salt Lake basin. This valley was described as "a barren, arid plain, rimmed by mountains like a literal basin, . . . still occupied in its lowest parts by the dregs of what had once filled it to the brim; no meadows, not a tree worthy of the name; scarce a patch of greensward to entice the adventurous wanderers into the valley. . . . A more forsaken spot they had not passed in all their journeys. In order to subdue the unforbidding area cooperative effort was not only essential but it was utilized as a necessary step in the development of agriculture and industry in this region. These pioneers were the first among Anglo-Saxon people to practice irrigation." It is pointed out that with their marvelous energy and thrift they made more progress and suffered less privations in reclaiming the waste lands of their wilderness than did the Spaniards in the garden spots of New Mexico and Central America or the English in the more favored regions near the Atlantic seaboard. It is further suggested that colonization was too important and the need for diversity of crops too great to wait for volunteers. The authority of the church was therefore invoked in order to effect unity of purpose and action in building the new commonwealth.

In the period that was devoted to the organization and early development of this region it is clear that the principles of cooperative effort were gradually worked out and applied to many business enterprises. In church matters the principle of the tithe was emphasized and was put into practice under the leadership of Brigham Young. But attention was not directed to the principles of the first United Order until early in 1874. On that date Brigham Young delivered a sermon in St. George in which he expressed a desire that the people enter the Order of Enoch. Subsequently, meetings were held throughout the state and with his characteristic vigor Young proceeded to organize the people in many sections. The reaction was stimulating to their leaders. It is pointed out that the panic as well as the desire for isolation provided the chief reason for the organization of the second United Order. Brigham Young made it clear that communism was not the goal of the United Order and he made this rather significant comment at that time:

"I do not wish for one moment to recognize the idea that in order to establish the United Order our property has to be divided equally among the people to let them do what they please with it. But the idea is to get the people into the same state of unity in all things temporal that we find ourselves in with regard to things spiritual. Then let those who possess the ability and wisdom direct the labors of those not so endowed until they too develop the talent within them and, in time, acquire the same degree of ability."

It appears from this record that the first intensive organization drive seems to have come to a climax at the State Conference at Brigham City on July 28, 1874, and the general United Order had stake branches in nearly all of the stake headquarters. Each stake had many branches in the various wards or settlements. The personnel, in the majority of cases, was identical with the church officials. Shortly thereafter opposition began to develop and resistance to the Order, both within and without the fold, prevented the ultimate success which was originally in the minds of the leaders of the church.

In his concluding remarks the author suggests that "the Mormons were not harassed by more pressing problems than those which confronted the early settlers of Missouri and the power was not lacking to carry out the command of their fundamental doctrine. They may have had grave doubts of the intrinsic merits of the plan or possibly the expedient of tithing removed the annoying economic necessity of carrying out the will of God as revealed to His servant, Joseph. Be that as it may, the records clearly indicate that Brigham Young and his priesthood did not need the United Order to give them temporal power—while tithing, the perpetual immigration fund, and the relief society sisters provided for the needs of the church. Furthermore, Young and his associates were men of great business ability, a trait woefully lacking in the makeup of Joseph Smith, and were eager to prosper personally with the growth of the community."

While many church members who had acquired considerable of this world's goods were not willing to submit themselves to the principles of the Order, nevertheless it appears to be true that "to the extent that the Order functioned it helped the people to meet the depression in a united manner, economic burdens were shared by those who entered the Order. This was particularly true of the communities which adopted the communistic form. Wherever the Order was established attempts were made to develop manufacturing enterprises. Severe retrenchment in community and private expenditures was advocated by Brigham Young in order that the meager capital resources might be pooled and employed for this purpose.

"During the life of the Order the tithe of its members was paid in one lump sum to the church. This method of payment helped to assure the church of a reliable income for its needs and for the care of the poor.

"As an educational force the Order failed to teach the particular values of more cooperative living and it succeeded in convincing the people that private enterprise had more to offer them. The failure of the Order weakened the temporal place of the church.

"The collapse of the Order did not leave ruin in its wake. It had not been that important. As each Order was dissolved, private enterprise took over the various

departments which the Order had administered. Economic conditions changed but little for the people and the principles of their religion remained unchanged."

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Migration and Economic Opportunity, by Carter Goodrich and Others, Philadelphia: University of Pennsylvania Press. Pp. XVII, 763. $5.00.

This book is the final report of The Study of Population Redistribution, sponsored by the Social Science Research Council, the Rockefeller Foundation, and the Wharton School of Finance. The main purposes of the study are "to consider what directions of population movement may be economically desirable," and to analyse "possible techniques of guidance or control." (p. 7)

In Part One, "The Need for Migration," an analysis of living conditions in various regions of the country points to four major problem areas: the Southern Appalachian, the Old Cotton Belt, the Lake States Cutover, and the Great Plains regions. For each of these regions, an attempt is made to answer the question, "To what extent, if at all, is emigration from the problem area likely to be desirable or necessary?" (p. 53) The remainder of Part One deals with changes in the distribution of natural resources, the pattern of industrial location, and the demand for man-power.

Part Two, "The Control of Migration," presents the experiences with unguided migration in this country and with guided migration in three foreign countries. These sections are followed by a critique of the American policies of land programs, industrial decentralization, part-time farming, and subsistence homestead communities. The final chapter is entitled, "Toward a Migration Policy."

The Appendix includes articles on migration in the United States, wheat production in Kansas, location of manufactures, and the selection of urban housing areas.

The four regions mentioned above are shown to be areas of destitute population during prosperity and during depression, mainly because of an excess of population relative to resources. In all but the Cutover region, there is need for considerable emigration as well as internal population adjustment.

Shifts in the centers of power and raw material sources are not of sufficient importance to require population redistribution. "The largest population movements which are forecast by impending change in the resources are those associated with depletion." (p. 296) Changes in the pattern of industrial location have followed a "diffusion" of wage jobs from the centers of population concentration to their outer peripheries but not a "dispersion" of wage jobs from important industrial areas to non-industrial rural areas. Changes in the demand for man-power generally point to considerable unemployment; but assuming that "by one means or another" our economic system will again resume its advance, future opportunities will be better in the North than the South, in highly fabricated manufacture and non-material services than in agriculture or mining, and in the peripheries of industrial areas rather than in rural areas.

Unguided migration has resulted in movements into good areas during prosperity and into poverty areas during depression. By and large, however, unguided migration has improved "the distribution of population in

relation to economic opportunity," but it is an imperfect instrument. "The imperfections are quite serious enough, and their human consequences sufficiently tragic, to justify an interest in the possibility of more intelligent guidance." (p. 519)

In this country, many agencies are directly or indirectly affecting migration, and some of their programs are working at cross-purposes. Most important are rural zoning and public purchase which prevent migration into poor districts. Resettlement, positive direction of population, has been relatively insignificant in its accomplishments, according to the report. Industrial decentralization has received much attention, but "the major part of the necessary readjustment should be accomplished as in the past by the migration of people rather than of industry." (p. 626) Part-time farming, "the most interesting and the most ingenious (of) all the economic arguments for encouraging decentralization," has important limitations because "a very small part of the urban population is willing and able to practise part-time farming" and because "such farming provides only meagre security against industrial unemployment." (p. 637)

The Subsistence Homestead program is criticized because many of the projects were poorly located in relation to industrial jobs. The more recent green-belt projects of the Resettlement Administration are thought to be better located in this respect, but "the importance of these developments from the special viewpoint of population placement will be greater if they provide opportunities for a part of the necessary migration from the country than if they represent merely an improvement—however great—in the pattern of living for workers already urbanized." (p. 659)

The final conclusions are, in brief, that while population redistribution offers no escape from the larger problem of unemployment, rural zoning and public purchase may keep people out of poverty areas during depressions, and that meanwhile the government should assist the movement of people out of these areas, especially during good times. To ease the needed movement out of the South and out of agriculture into the peripheries of manufacturing centers, the authors suggest encouragement of labor legislation, extension of federal employment services, and urge a "thoroughgoing" educational system for the people in the problem areas so that as emigrants they will be better "fitted for life in the more prosperous communities." (p. 672) Stress is laid on the lack of basic data. "The first plank in an intelligent migration program must . . . be the prosaic one of further research." (p. 661)

"Migration and Economic Opportunity" presents a wide range of interesting and pertinent problems associated with population redistribution. If only because it represents the first broad attempt to round up these diverse aspects of internal migration, it will stand as an important contribution to the field. The positive recommendations of the volume will find general approval, but the authors have probably been too quick to throw out the policies suggested by others. The authors are to be complimented on their progressive social outlook and their regard for labor's point of view, a consideration which agricultural economists are too often apt to overlook.

Realizing that time for the study was limited, that the writers themselves emphasize the lack of useful available material, and that the book is written by some ten authors, one cannot expect the report to be above criticism in many respects. Neither space nor the reviewer's ability will

allow a full discussion of the weaknesses of the report. We may, however, refer to a few outstanding criticisms.

One general reaction raises doubts as to the type of audience to which the book is addressed. If the book were written for laymen, several sections are too long and detailed; if written for specialists, some of the original sources of material will remain more useful than the summaries presented. The four problem areas have already been described in detail in other studies. In the first five chapters of the report, little is added to what was already known except that very rough estimates are made of the number of people who should move out of these areas. The chapter on the Southern Appalachians, for example, is quite similar to Miscellaneous Publication 205 of the U.S.D.A., "Economic and Social Problems and Conditions of the Southern Appalachians."

For a lengthy volume on population redistribution, it is surprising to find that practically no attention is paid to the crowded masses in our cities. The omission is due partly to the analysis which selects the problem areas on the basis of maps showing, by counties, agricultural income, planes of living, and percentage of population on relief. No one will doubt that large numbers of poverty-stricken people exist in the four problem regions. That condition has been indicated many times. But it may also be true that an equally large or larger absolute number of such people subsist in those urbanized areas which rate relatively well on the plane of living maps.

A few important concepts of the authors are not clear-cut. The relation of general unemployment to migration is differently regarded in various parts of the report. In places, the assumption is made that our economic system will resume a general advance in total production and employment. In that event, movement should be towards those areas where the employment possibilities are good. In other parts of the report, a stationary number of wage jobs is considered a limiting factor to suggested policies. On this basis, any movement into an employing area necessitates a degree of unemployment for present workers in that area. Nor do the authors maintain a clear differentiation between intra-regional adjustment and inter-regional migration.

In certain sections of the book, the authors lack sufficient data to maintain their positions firmly. Where the writers get away from substantiating material, the reader has the impression that the writers are going out of their way to combat ideas which they believe have wide adherence. Instances of this type of misdirected and unsubstantiated attack detract from the general appeal and soundness of the report. In the chapter on industrial location, an excellent presentation is made of complex data. This analysis leads directly and conclusively to the fact that in the past industry has "diffused" from centers of concentration into industrial peripheries but has not generally "dispersed" far out into rural areas. The writer then assumes that proponents of decentralization favor "dispersion" as opposed to "diffusion." (The basis for this assumption is a mystery.) He then directs his efforts to refuting this "thesis" on grounds for which he has few, if any, facts.

While the reviewer has not checked on the accuracy of all the data in this 763-page volume, misstatements of fact occur in the section on part-time farming. An example of this is to be found on pages 631-632 where it is stated: "A study in Massachusetts shows that . . . on 199 part-time

farms in 1929 . . . the gross farm income represented approximately 20 per cent of the total family income. In 1932, the average gross income of 267 part-time farmers in . . . New York was $1,184. Of this amount, only $135, or 11.4 per cent of the total, came from the farm. . . ." Reference to the original sources reveals that the same statement should read: "A study in Massachusetts shows that . . . on 199 part-time farms in 1929 . . . the gross farm income represented approximately 30 per cent of the total family income. In 1932, the average gross income of 267 part-time farmers in . . . New York was $1,184. Of this amount, only [?] $425, or 36 per cent of the total, came from the farm. . . ." In this section, data is inaccurately handled in several ways. Whatever uses are made of the whole volume, the part-time farming section at least cannot be considered a reliable summary of research which has been done.

L. A. SALTER, JR.

Connecticut State College

Is There Enough Gold? By Charles O. Hardy. Washington: Brookings Institution. 1936. x + 212. $1.50.

This small volume presents a concise survey and an admirable criticism of the important post-war literature on the relation between gold production and the price level. The author summarizes his conclusions as follows (pp. 122-23):

> Inadequacy of the world gold supply was not a factor contributing to the decline of prices between 1924 and 1929, and there was no immediate prospect of a serious decline in gold production before the coming of the depression.
>
> Among the difficulties in the way of the restoration of the gold standard throughout the world, a present or prospective deficiency in the supply of gold has no place. The supply is ample to justify the restoration of the gold standard as soon as it is deemed otherwise advantageous.
>
> On the contrary, a real problem has been created by the great increase in the world's monetary gold stock which has taken place since 1929. A general credit expansion corresponding to this increase in gold stocks is highly undesirable. It is important, however, that the sterilization of part of the existing supply not be accomplished merely by stepping up existing gold reserve requirements and thereby creating a need for proportionally increased increments of gold to take care of future growth.
>
> Finally, the huge transfers of floating credit dissociated from shifts of the balance of trade and long-term investment, with accompanying drains of gold reserves are, as they were before the depression, serious potential sources of monetary disturbance. Until some way is found to minimize the effect of large international transfers of bank deposits and short-term investments upon the determination of central banks' domestic credit policy, no possible gold supply will be large enough to insure against monetary disequilibrium.
>
> We believe that if the gold standard is restored, the objectives stated can best be achieved by the establishment of some plan under which a large part of the existing world gold stock would be segregated into extraordinary reserves. These reserves, which would not necessarily be under the control of central banks, would be drawn upon to take care of extraordinary transfers of balances from one country to another, but would not be taken into consideration in determining the credit policies of central banks and other monetary authorities in their attempt to control the volume of domesic credit.

Discussing the views of Cassel, Kitchin, Edie, Wotinsky, Mlynarski, Loveday and others, Doctor Hardy contends (1) that the familiar estimates of the rate of gold production necessary to maintenance of the price level were markedly excessive, and (2) that the forecasts of early and rapid decline in the world output of gold were, on the evidence then available, unwarranted. Instead of the familiar 3 per cent, Hardy suggests 1.5 per cent as the rate of increase in monetary stocks necessary, under 19th-century conditions, to a stable price level; and he concedes that a slightly higher estimate (2 per cent but not 3 per cent) was appropriate for the future, in view of the prospect of less rapid creation of effective money-substitutes. Criticism of the predepression forecasts of gold production is facilitated by hindsight; but the author argues persuasively that "there was no sound reason for anticipating any decline of world production in the decade of the thirties, assuming a continuance of the 1929 price level." (p. 61)

The author gives little attention to broader questions of monetary policy; and, perhaps for this reason, his ventures in criticism, which comprise the greater part of the book, are more impressive than the practical proposals with which he concludes. He appears to favor reestablishment of the international gold standard; but he recognizes clearly the shortcomings of a gold-standard system involving management without rules, by authorities with wide discretionary powers. His scheme for the sterilizing of excess reserves, however, would appear to introduce yet another element of arbitrary management, and to disperse still further the control of the currency and the responsibility for monetary policy. He offers, at all events, no intimation of the legislative rules under which the proposed stabilization funds might be established and operated without a multiplying of monetary uncertainties.

A puzzling thing about this book is the question of why it was written. It will probably serve, however unintentionally, to strengthen a widespread notion that reestablishment of the international gold standard (and balancing of the budget) would largely and happily dispose of our monetary problems. It provides, for academic students, a skillful demonstration that the views of those who foresaw a dangerous gold shortage can be questioned successfully without questioning their premises. But it does not show why students should now be concerned about discussions within those premises. The reviewer, incidentally, retains a persuasion that the trend of prices under the gold standard has been, and is likely to be, determined predominantly by factors other than gold production—notably, by changes in the financial structure and in "money-habits." In any case, our real monetary problems obviously are not problems of slow secular change in the value of money; the kind of gradual decline of prices which might possibly result from marked decline of gold production would probably be innocuous, if not positively salutary. Moreover, the reestablishment of the international gold standard, far from giving us a monetary policy or establishing a significant degree of certainty regarding monetary conditions in the future, would only raise the issue more seriously (as Hardy would perhaps agree). With our immense stock of gold we would be free to pursue, within the gold standard, almost any policy which we might choose or (as many conservatives apparently prefer) to proceed with no policy whatever. For other countries in the system, the future of American

banking or tariff policy, along with many other factors, is far more important than the outlook regarding the output of gold. Thus one hopes that Hardy's excellent study may serve to conclude a discussion which, however appropriate to the comfortable decade of the twenties, can throw little light on important problems of the significant future.

The last half of the volume reprints the author's previously published pamphlet on The Warren-Pearson Price Theory, an excellent and devastating analysis which merited re-publication, and a useful supplement to the preceding chapters. Thus the book offers, in concise form, about all that students in the future will need to know about two conspicuous and unfortunate episodes in the history of monetary discussion.

H. C. Simons

University of Chicago

Insurance and Annuities From the Buyer's Point of View, by E. C. Harwood, and B. S. Francis, Cambridge: American Institute for Economic Research. 1936. Pp. 171. $2.50.

Life insurance seems to be so generally accepted as desirable that many persons are persuaded to invest thousands of dollars of their money in it without clearly understanding what they are getting. It is a regrettable fact that many buyers of insurance do not understand the principles of insurance, the differences between various types of policies, and the possibilities that lie in a carefully planned program of investment. They do not fit the kinds and amounts of life insurance and annuities they buy to their particular needs, and as a result, they waste money they can ill afford to lose. The public needs a better understanding of life insurance and annuities, and books such as this one by Mr. Harwood and Mr. Francis should go a long way toward developing that understanding.

Certain principles of life insurance and annuities which are too often cloaked in technical terms must be understood if the buyer is to invest his money intelligently. What is the difference between life insurance and annuities? How are premiums and dividends determined? What are reserves, and what is the difference between a reserve calculated on a three per cent basis and one calculated on a four per cent basis? What is surplus? How can some insurance policy illustrations show a "net profit" to the insured person? In answering these and other questions, the authors do an excellent job of explaining the important technicalities of insurance and annuities in such a way that the reader understands the principles involved and their relationships to each other.

Insurance agents are usually prepared to offer a prospective buyer several different insurance and annuity contracts which vary greatly in cost. The authors explain the nature of the most common contracts and show why the differences in cost exist. They then proceed to the important question: What kinds of insurance and annuities should be bought to form a well rounded program of investment? The authors do not attempt to answer this for each individual case, but they outline the way in which the problem should be approached. Most of the important considerations are touched on, and this section deserves careful reading. Good as the section is, however, it probably could be improved by a more detailed discussion. It is in attacking this problem that most investors make their mistakes, and perhaps the authors have slighted this topic in striving for brevity.

One important question remains: How should one choose a company with which to do business? The authors give consideration to the type of company, financial security, and the cost of insurance or the yield of annuities. They state that costs vary greatly among companies, and they present a series of tables showing the net cost of two of the most common kinds of insurance over a twenty year period in each of several of the leading companies. The computations differ from most net cost figures found in life insurance manuals in that they include interest at four per cent on the net premiums as a cost of insurance. The actuaries of any of the companies with relatively poor ratings could probably suggest other bases for computing net costs which would rate their companies higher, and some of them would present good supporting arguments. The tables, however, are useful at least in illustrating what factors must be considered in computing net costs. Tables of the yields of annuities with different companies are also given.

When one realizes how large an investment he probably is making when he buys life insurance on an annuity, he will appreciate the desirability of investing wisely. Reading a book such as this certainly does not seem too much to do towards that end. This particular book is brief, clear, and non-technical, and anyone not more than ordinarily informed, who will eventually buy life insurance or an annuity or who is not satisfied with the purchases he already has made, will find it instructive and profitable.

G. E. Brandow

Cornell University

Farm Accountancy Statistics for 1931-32. International Institute of Agriculture. Rome. 1936. Pp. xxvi + 255. 50 lire.

This book represents the principal accounting results of 10,034 farms in 17 countries of Western Europe, and 64 from one of the Provinces of India for the year 1931-32. The results are given as averages for groups of farms. This is the fifth of the series of annual reports and, according to the letter of transmittal, perhaps the last. But continuance of collection and analysis of accountancy statistics by the Institute staff with use in special studies in view may be expected. Articles may appear in the monthly Bulletin of the Institute or in an occasional monograph. The 5-year comparisons presented in this book are tantalizing: one wonders what the next year might show if they could be similarly added to the series.

From the five books in this series produced by the Institute staff with the cooperation of accountancy offices in the countries represented one may gain much insight into European farming.

S. W. Mendum

Bureau of Agricultural Economics

Soil Erosion and Its Control, by Quincy C. Ayres. New York: McGraw-Hill. 1936. Pp. 419. $4.00.

This book as the author states in his Preface is "... a general treatise on erosion control for the use of students in colleges and vocational agriculture departments, county agents, engineers, farmers, public officials, bankers, investors, and others who may be interested in the subject." The author

recognizes that it is not the final word on the subject as "many questions regarding relative value of various control measures cannot yet be answered with scientific exactitude."

The author's attitude toward the text is expressed in the following paragraph in his Preface:

"One of the functions of technical authorship, it is believed, is to canvass available data, sift out that which is unsupported by facts, and report the remainder in an accurate, impersonal manner. Where insufficient facts exist, and competent opinion differs as to the value of various processes or methods, the author considers it his duty to report all versions of important practices as impartially as possible."

The importance of conservation in the author's mind is indicated in the following quotations from his introduction:

"A permanent consciousness must be developed on a nationwide scale, with a firm resolve to do everything possible to restore, or at least approach, a natural rate of change or balance between fertility production and consumption."

"Erosion devastation has now become so apparent in the older cropping regions of the United States that there is no longer any doubt about the gravity of the menace."

"Erosion is truly as widespread as man's efforts to exploit sloping lands; and, in the attempt to describe the havoc wrought and the portent for the future, superlatives are not only warranted but necessary."

The author also recognizes the public interest in this problem but chiefly from an engineering standpoint in "reduced flood heights, clearer streams and lower maintenance charges for bridges and culverts, drainage ditches and navigable water ways." He does not mention the public's interest in sustaining production from the standpoint of either volume or cost. He discusses types of erosion with many excellent illustrations; reviews early effort at control and explains the present setup of the Conservation Service and the contribution of the CCC erosion camps. He criticizes these erosion camps only because of their temporary nature while the erosion problem is a long-time problem. He discusses the causes of excessive erosion and divides these causes into man-created and those outside man's control. He then takes up methods of control. Lands can be broadly classified as to the control measures appropriate but there will always be areas or zones between those clearly in each of these classes where control measures are not so clearly indicated. He gives some constructive criticism of part of the experimental work being conducted, discusses contours, strip cropping, terracing, field stripping, etc., with advantages and disadvantages. He discusses in some detail the laws of run-off of rainfall, and presents directions for locating and designing of terraces with details of construction, formulæ for capacity, machinery of construction, maintenance of outlets, etc. These details should form a very usable and practical guide to terrace builders. He gives extensive data on cost of construction with factors influencing these. He shows costs for varying conditions and varying outfits and discusses problems of maintaining terraces but does not give data on the annual cost of maintenance.

He then turns to control of erosion in gullies and devotes three chapters to this subject with one chapter to control of larger streams. Control meas-

ures discussed are in general engineering structures of one type or another. A chapter is given to the use of vegetation in controlling chiefly gully erosion. Here he discusses use of trees, shrubs, vines and grasses and their effectiveness from a mechanical standpoint in controlling erosion.

This mechanical relationship between vegetation and erosion control would not be regarded as an adequate view by agronomists. The agronomist at once relates the use of plants in erosion control to systems of farming and probable returns from those systems. Thus they would probably give the major emphasis to phases of erosion control which the author has only very briefly mentioned. He does recognize the relation between control procedure and the economic welfare of the farmer operator, or that of agriculture as a whole. This is evidenced in the following quotation:

> "Such reorganization is an exceedingly complex problem, impinging as it does upon many phases of American life; social, economic, and governmental. A long time will be required to work it out on the basis of the greatest good to the greatest number, and many false starts will doubtless be taken and retraced before a final solution is reached."

After reviewing procedure and equipment on two of the federal erosion experimental farms and after emphasizing the practical procedure in mapping for erosion control purposes, the author brings together in an excellent summary table the treatment necessary for erosion control for lands of varying slope and present degree of erosion.

In the final few pages before the Appendix he refers to the non-physical aspects of erosion control in the following quotation: ". . . in a country whose agricultural domain has been utilized on a purely exploitative basis it is inevitable that many non-physical obstacles will have to be overcome and much maladjustment neutralized. . . ." He does not discuss these obstacles or suggest a solution, but does quote at length from an Iowa bulletin (No. 333) on these points.

The general impression from reading this book is that it is a rather excellent treatment in terms not too technical, chiefly of the engineering aspects of erosion control. About three fourths of the book is strictly engineering and one fourth touches on agronomic aspects. There is also an excellent bibliography at the close. The author cannot be commended too highly for bringing together this useful body of information heretofor unassembled. The large proportion of space given to engineering phases might lead one to conclude that the engineering aspects are much more important. I am sure this was not intended. The author would undoubtedly agree with a well known agronomist who expresses it as follows: "Erosion control is after all a mode of farming. No one method of control is sufficient. It is a combination of a number of methods."

There seems to be a number of questions which would affect procedure in erosion control to which the author has given little attention in this work. Such questions as what is the relation between productivity of land and justifiable cost of control of erosion: What should be our policy concerning those lands which need rescuing but which are too poor to justify private outlays; has our progress in erosion control to date indicated the extent to which erosion control practices can be privately borne? These and many other questions equally pertinent would certainly affect the ap-

plication of engineering methods in individual cases. With the general nature of the title given to the book, it would seem that the economic and agronomic aspects should have come in for a more liberal share of treatment.

O. R. JOHNSON

University of Missouri

After the New Deal, What?, by Norman Thomas. New York: The Macmillan Company. 1936. Pp. IX, 244. $2.00.

This book was written during the recent political campaign. While the author was an active participant in that campaign as the nominee of his party for the office of President, it is not primarily a campaign document. It is rather an exposition of socialism by the leader of the Socialist party.

The opening chapter, entitled "1936," comments on campaign issues. The New Deal might have been dubbed the "late" New Deal by the author because in his opinion it is dead. Three causes are indicated as having contributed to the demise: Loss of consent and cooperation of business in the changes involved; Supreme Court decisions, and failure of the New Deal to "perform its basic task." The second chapter concerns itself with a characterization of what the New Deal "was." Particular pains are taken to demonstrate that it was not socialism. "Actually the New Deal is, or rather was, an experimental attempt at reformed capitalism" (p. 16). Some pointed remarks about agricultural aspects of the New Deal will be of interest to agricultural economists. Thus, the comment with regard to the agricultural adjustment program is that "if AAA is or was an answer, it would be in terms of preparation for the beatific bliss of the happy island whose inhabitants lived by taking in one another's washing—only we may not even do the washing!" (p. 37). Likewise, "Mr. Tugwell's rural settlement so far has been glorified and costly social settlement stuff" (p. 40). Lack of administrative action in regard to difficulties arising over efforts of share croppers to organize comes in for pointed comment. This is not unexpected in view of the author's interest in these developments.

In Chapter III, "The Economic Situation," the author pays his respects to a number of groups—farmers, organized labor, and business men's organizations; to the viewpoints of various individuals on factors involved in the situation; and to various plans—Sinclair's Epic, The Townsend Plan, and Father Coughlin's ideas. The importance of planning for use is pointed out with the conclusion that this is impossible under capitalism.

A chapter on the "Political Situation" gives major attention to the constitution and changes deemed necessary in it as well as needed changes in our understanding of "the nature and purpose of the state." In a chapter on "The United States and Its Neighbors," the conclusion is reached that we can not rely on free trade in view of the extent of control at home in so many countries.

The chapter on "The Future: Fascism?" supplies the answer to the query involved in the title of the book, "After the New Deal, What?" The answer is "fascism." The author sees one way out, however, when he says that "The only escape is a well-organized and concerted effort to build the cooperative commonwealth" (p. 142). The discussion of fascism is followed by a chapter on "The Future: Socialism?" As often is the case with advo-

cates of a specific plan or program to solve the ills of mankind, the discussion is somewhat long on *what* socialism is expected to accomplish and rather short on just *how* the promised ends are to be attained. Not all agricultural economists will find their confidence in the reasoning employed strengthened by the author's apparent readiness to accept as authoritative the conclusions of O. F. Wilcox in *Reshaping Agriculture* and of Messrs. Parish and Clark in a popular magazine article. Faith apparently is placed in the ability of "experts" to anticipate trends in consumption. An analogy is found between the room left for "effective consumers' choice" in consumers' cooperatives and that possible under socialism—a parallel that is not without some limitations. A better basis for liberty is anticipated under socialism than that found under other forms. Industries are visualized as being "functionally self-governed" rather than being under political control. The comment might be made that the art of bringing pressure is not a monopoly of conservatives. One perhaps may, therefore, not be entirely unjustified in wondering what means are to be employed to dispose of pressure groups. This chapter ends with the conclusion that "Socialism will be untrue to itself if ever it forgets that its purpose is not merely to bring prosperity and peace, but freedom to mankind" (p. 185).

Chapter VIII discusses "Dynamic Forces of Change." Encouragement is found in the growing interest in consumers' cooperation, in certain developments in the labor union movement, and in the progress of the Farmer-Labor party. The author regards consumers' cooperation as having "certain immense values" but makes it clear that he does not view it as "all sufficient." In short, the views of Mr. Thomas regarding the limitations of consumers' cooperation are somewhat akin to the views of certain consumers' cooperative leaders regarding the limitations of socialism. Agricultural cooperatives are not accorded the same recognition because they are not by "nature an enemy of the profit system."

In a chapter devoted to "Socialists and Communists," socialism gets the call. The present differences between the two are held to make organic unity impossible. The book ends with a brief chapter bearing the challenging heading "The Issue Is Revolutionary." Of course, the author uses "revolution" here in the sense of change rather than in the sense of a bloody uprising. The conclusion is that "It is too late to turn back to an older order even were that desirable. Capitalism can not be rejuvenated" (p. 231).

This book is interesting and stimulating. It is written in the clear, expressive style which characterizes the presentations of Mr. Thomas. Agricultural economists will find it well worth reading as a means of acquainting themselves better with the viewpoint of the leader of this movement. Conservatives who may be tempted to avoid it for fear that it may be too liberal for them should remember that the statement that "a conservative is one who worships dead radicals" is not without merit.

O. B. Jesness

University of Minnesota

The Great Change: Work and Wealth in the New Age, by Frank Bohn and Richard T. Ely. New York: Thomas Nelson and Sons, 1935. $1.60.

This book is addressed to the general reader, students in colleges and upper classes in high schools, and "those who in public life are guiding our

policies during the present period of distress and recovery." It was written, apparently, in 1934. Its subject matter is mainly reconstruction of the social order—what economic and social developments have made reconstruction necessary, and what general procedures ought to be followed in social reconstruction in the United States. "Reconstruction" appears to mean achievement of economic security for all, with preservation of political liberties. The senior author, Dr. Ely, writes (excellently) about a third of the book; Dr. Bohn writes the bulk of it.

The audience to whom the authors address themselves ought to read with interest and profit. A very wide range of controversial subject matter is presented, skillfully expounded within the limits of reasonably available space, and treated without conspicuous bias. This book is not one of the many that nowadays are filled with such phrases as "property rights above human rights," or "surplus economy," or "$10,000 a year for every family."

The authors look sympathetically upon the broad ideals of socialism, but deplore its perverted forms, communism and fascism. They favor large-scale industry and a competitive system, but frown upon monopoly and price fixing, and feel that a business organization can be too big. They perceive general need for regulation, but not for regimentation. They look askance at federal centralization, and see much for the states to do. They favor public works, but frown upon unbalanced budgets. They would stiffen regulations of banking; but regard a managed currency with disfavor. They specifically "have taken no position with reference to the government ownership of natural resources, of transportation, or of banking facilities." (p. 228)

The authors fail to bring together in one place their specific "program for reconstruction," if indeed it is permissible to infer one. Some hints of it are conveyed by the following quotations:

"One quarter, and perhaps one third, of our land could be used for forestry and so replace a great deal of submarginal farming land in its present use. . . . To bring this about requires public action and social control. It means making land a public utility. . . ." (p. 199) "This land planning would require control of urban developments large enough to be of social significance. Before these are undertaken . . . we should require a certificate of convenience and necessity." (p. 201) "One essential feature in any recovery program with respect to the land is a different system of taxation of real estate. . . . Land should be valued, then taxed, in proportion to its annual use value." (p. 204) "What I wish to see is a multiplication of . . . 'islands of safety' everywhere . . . it is something more than subsistence homesteads and part-time farming. . . I wish to see opportunities made for all competent people to acquire land in the city as well as in the country, and hold it through good times and bad." (pp. 207-8)

". . . we must develop a concept of fair competition and through regulation put into practice the good competitive processes." (p. 213) ". . . the Federal Trade Commission has accomplished great good. Its operations . . . must be much more expanded." (p. 143)

". . . Until this nation decides to build anew in the field of education, and build upon education, we cannot build anything else successfully. Reconstruction begins here or nowhere." (p. 254)

". . . Our plan is to organize a peace-time army which will offer useful and productive work to all who are in need of it. . . . The work . . . should be paid for, largely,

by the mutual services of those in the army. . . . The peace-time force should be so formed as to permit of rapid expansion during times of depression." (pp. 256-58)

"We must . . . proceed with caution in all negotiations looking towards lower tariff agreements." (p. 344)

These ideas are worth pondering. In the reviewer's opinion, we shall not go far, fast, with land policy, education, or the peace-time army; and a definite policy of downward revision of tariffs would be much more advantageous than the authors seem to think. But events have moved swiftly in the two years since the book was published; and those events would perhaps alter both the substance of the conclusions and the emphasis put upon them. The plight of the country is not what it was, and in particular the shadow of fascism, which the authors appear to dread, does not seem at present to lie over us.

Dr. Bohn's discussions are occasionally marred by his use of such injudicious phrases as "tragic degeneracy of the nation," "mechanized debauchery of the workers," "city . . . a vast parasitic growth upon the country-side," and "The machines rule us." Both authors discuss rural life half a century or more ago with a tinge of nostalgia.

M. K. Bennett

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Whose Constitution: An Enquiry into the General Welfare, by Henry A. Wallace. New York: Reynal and Hitchcock. 1936. Pp. 336.

The introduction to this book written by the Secretary of Agriculture for the United States, provides the reader with a clue to what may be found in a perusal of its contents. Briefly summarized, the author states that the doctrine of individual liberty set forth in the Declaration of Independence and the unity and common welfare theme of the introduction to the Constitution represent the two poles between which the spirit of the new world oscillates. The clash between individualism, corporate control, state rights, federal jurisdiction and the general welfare are reflected in these two extremes of view point written within twelve years of one another. Coming down through history since that time, evidence of the same conflict is found.

Recent judicial decisions on various economic measures provide the incentive for a review of what the framers of the Constitution intended, and for an examination of the background of institutions and aims to the end that the nation may know where it now stands and may prepare for the next move.

The book is divided into four parts made up of 18 chapters. The several chapters of the first part present a comprehensive word picture of the development of agriculture and its place in the national setting. The conditions prevailing at the time of the drafting of the Constitution are contrasted with those of today. The ascendency of farmers in the consideration of national affairs, the expansion of agriculture and transportation, shifts in agricultural population, growth of urban centers and development of industries, the devastating effect of over-expansion and resulting depression are reviewed at some length.

The fourth chapter in this part presents a brief analysis of the country's shift from a debtor to a creditor nation during the World War and resulting

failure on the part of statesmen and the public generally to recognize that such a change called for a reversal of policy with respect to international trade.

Part two opens with a discourse on "The Blessings of Liberty" in which early concepts—safety from arbitrary action by the state, freedom of assembly and worship, liberty of conscience and speech—are contrasted with the modern version described as "Sanctification of the methods of big business." Then follows a series of dissertations on the effect of soil, population, foreign trade, machinery and corporations on the general welfare.

The depletion of the nation's soil resources through constant skimming of fertility, the cutting of forests and other practices that encourage erosion are discussed. Capitalism is referred to as encouraging the exploitation of natural resources. The author thinks that scientifically the nation has probably 30 years in which to decide whether or not its soil resources shall be maintained on a self-renewing basis but he suggests that an awakening to the need of such action may come much sooner.

The Secretary's views on foreign trade will be read with particular interest by people in other countries. He refers to the coming of age of undeveloped countries with accompanying increase of industrial activities. The World War caused a speeding up of these activities and an increase in import restrictions that was followed by an endeavor on the part of European nations to become self-sufficient in raw materials and food supplies. It is observed that when one nation adopts such a policy, others must follow suit, and, that in the end, all are losers for only by an interchange of goods and services can the standard of living be raised and the national welfare promoted. This chapter read in conjunction with the fourth chapter of part 1 reveals an appreciation of the problems and responsibilities of a country such as the United States in the conduct of international trade.

The appraisal of mechanization and its contribution to the general welfare strikes a note that is hardly expected of an American writer—one more in tune with the European viewpoint. To question the contribution of the machine and to place above it an appreciation of nature—a suggestion that open air and sunshine are more to be favored than congested, smoke filled industrial centers—is such a rare expression as to command attention. In comparing industrial and agricultural progress and potentialities in the use of machinery, attention is directed toward the fact that while there is no limitation to the power of human beings to consume the products of industry, there is a limit beyond which the human stomach cannot be stretched even after allowance is made for substitution and dietary improvements.

Corporations come in for both praise and criticism in a chapter dealing with their effect on national life; concentration of wealth, power to throw thousands out of employment, and other matters are dealt with. A challenge to corporations to do as much to increase distribution and consumption as they have done to improve production is made.

Considerable space, under the title "The Wise Young Man of 1787" is devoted to a discussion of the issues prevailing at the time of the constitutional convention. Prominent at that time, just as today, was the question of state and federal rights. Many attempts have been made to peer more deeply into the minds and to interpret the objectives of those who sat at Philadelphia on that historic occasion. The author makes a

further contribution to this subject and emphasizes that the Founding Fathers recognized the possibilities of change and believed they were drafting a constitution capable of modern interpretation.

The authority of the Supreme Court to pass on Acts of Congress, together with the variations and differences in the Court's interpretations form the basis of discussion in the succeeding chapter. It will no doubt come as a surprise to many to learn that the Constitution does not definitely give the court power to determine whether or not an act is constitutional. Acceptance of this authority dates from 1803 when John Marshall, as Chief Justice, enunciated the principle.

The growing tendency of the Supreme Court to invalidate acts of Congress is indicated by the fact that in the fifteen years between 1920 and 1935, more acts were nullified than during the first 100 years of its existence. In the first 50 years, only one such decision was rendered (though many constitutional questions were ruled upon), in the next 50 there were 19, while in the last 46 years, there have been 49 cases. In over two thirds of the cases, the Court failed to agree. In succeeding passages of this section, the commerce clause of the Constitution is used to indicate how interpretations and decisions have varied with the liberality and narrowness of viewpoint dominating successive judges.

In the opening chapter of the fourth part of the book, the methods of obtaining legislation at Washington are reviewed. Discussion of "pressure groups" is the main subject under review. A proposal is made that a "council for the general welfare," to be composed of men of high caliber in different fields of endeavor, should be appointed to act as an adviser to Congress on matters of national concern.

In the succeeding chapter, the discussion of the Agricultural Adjustment Act is resumed. Emphasis is placed upon the emergency character of the activities considered necessary when the legislation first became operative as contrasted with a permanent program of planning and adjustment in process of development a year before the Supreme Court invalidated the Act. The new program of soil conservation, it is explained, is projected as the start of a long term policy. Increased farm ownership with resulting permanency and interest in the land, more cooperative activity, not only in selling farm products but in the purchase of farm supplies, together with a greater interest in promotion of the general welfare by farmers, are seen by the Secretary as requirements of an enduring agricultural civilization.

In the last chapter, the author becomes philosopher and economic critic —perhaps one should say "becomes more so" for throughout the text, philosophy and constructive criticism are found in abundance. Religion—Protestantism, and its contribution toward thrift and resulting wealth—economic theory as enunciated by Adam Smith and others, come in for some searching analysis.

The closing appeal of the author is for a recognition of changing economic conditions, and an appreciation of cooperation. He quotes approvingly the writings of George Russell (AE). He believes we are approaching the end of a materialistic age. "The society of the future, it seems to me, will not only emphasize the cooperative welfare as contrasted with individualistic competition, but it will emphasize life contrasted with mechanics"; and again "today we need a great many more persons who will be-

come as deeply motivated by the idea of a cooperative economic society as the young men of 1776 and 1787 were motivated by the idea of a democratic political society." He concludes with the thought that a new form of statecraft in the economic field is required and that "the Constitution provides ample scope for evolution" toward this objective, depending however upon its interpretation and the use made by pressure groups of old or new legislation.

"Whose Constitution" is an extremely interesting book. It is written in the clever, entertaining and thought provoking manner characteristic of the Secretary. Whether or not one agrees with the view points expressed is, of course, another matter. It is probable that many of the author's agricultural critics will be disarmed after having read this more extended discussion of his views and policies. His comments on some questions will, however, unearth new critics and it is assumed that he would be disappointed if this were not so.

J. F. Booth

Department of Agriculture, Canada

America's Heritage from John Stuart Mill, by George Morlan. New York: Columbia University Press. 1936. Pp. 200. $2.00.

Doctor Morlan's book is an examination of the various doctrines of "liberalism." This term is used to indicate the social philosophy which "includes the belief in individualism, competition, private property, democracy, and freedom, combined with a deep faith in education" (p. v). Mill is taken as an outstanding exponent of liberalism and the attempt is made not only to explain his views but to evaluate his liberalism with reference to modern conditions and to compare his ideas with those of modern writers.

The book is divided into seven chapters. These are entitled:

I. Economic Doctrines;
II. Social Psychology;
III. The State;
IV. Social Change;
V. Liberal Education;
VI. Liberalism in America;
VII. A Reconstruction.

The content of the last chapter would be more clearly indicated if it were entitled "Summary and Conclusions with Regard to Modern Conditions."

In expounding Mill's views on liberalism Doctor Morlan is on the whole quite as much a champion as a critic. He takes pains to point out that the doctrines concerned the social and economic conditions of England in Mill's day. It is held, however, that the doctrines are, on the whole, inapplicable to modern conditions. The author is critical of recent statements of Americans who follow in the tradition of Mill in extolling individualism and competition as opposed to a planned control. He deals in particular with certain statements of Benjamin Anderson, Herbert Hoover, and the American Liberty League.

The kernel of the author's interpretation and appraisal of Mill's eco-

nomic doctrines may be found in the first two sentences of the last chapter:

> "The main organizing principle of Mill's liberalism as well as that of many others today is that of *laissez faire*. Yet material and economic conditions have undermined the very pattern of this philosophy." (p. 155)

It is a difficult task to present and appraise the philosophy of anyone whose writings exhibit so much of the characteristics of a mosaic as do those of John Stuart Mill. Nevertheless Doctor Morlan has, in my opinion, done this task well. There are however points with which I disagree. For example:

> "If *laissez faire* were to function successfully, there had to be a free market with unlimited competaition. Whether this free market did or could exist, Mill never consistently thought through." (p. 26)

The requirement of "a free market with unlimited competition" might be appropriate as a requisite for complete adoption and perfect results of a *laissez faire* policy but it certainly is not necessary in order that *laissez faire* may function successfully as a general policy. Furthermore, Mill clearly recognized that as a general policy it is "liable to large exceptions." This is evidenced by the fact that he devotes approximately two thirds of his chapter, "Of the Grounds and Limits of the Laissez faire or Noninterference Principle,"[1] to a discussion of those exceptions.

Many economists fail to consider the *laissez-faire* doctrine in the light of the very stringent restrictions on enterprise which existed in Europe during the 17th and 18th Centuries. The so-called *laissez-faire* economists of the late 18th and 19th Centuries did not advocate complete nonintervention as some modern writers and speakers apparently believe. The work under review is more likely to add to than to clear up this misconception.

At times Doctor Morlan appears to confuse *laissez faire* with individualism and freedom of competition. Thus he says:

> "Even in agriculture where there has been the least organization and the greatest freedom of independent direction, in other words where there has been the closest approximation to *laissez faire*, falling prices instead of reducing production that would have brought about equilibrium only aggravated the situation. . . .
>
> "Where *laissez faire* has had the greatest opportunity to operate, it has not functioned as it was supposed to, and in most of the rest of the economic life of the nation it no longer exists." (pp. 154-155)

What is still worse, he has here attributed to *laissez faire* what might better be attributed to *lack* of freedom of competition and of individualism in nonagricultural industries. It would be more appropriate to say that the conditions he mentions were due to the non-intervention policies which permitted the lack of competition in other industries rather than to the operation of *laissez-faire* policies in agriculture.

As every agricultural economist knows, the lowering of the price of one agricultural commodity relative to others will result in reducing its production and *vice versa*. *Within* agriculture the high degree of individualism, the freedom of competition, and until recently the substantial existence of *laissez faire*, resulted in these things functioning as they are supposed to. The reason why agricultural production as a whole was not

reduced during the recent depression when agricultural prices declined relative to the prices of other products was the *lack* of individualism, and freedom of competition in the *other* industries, quite as much as the existence of them in agriculture. Those engaged in agriculture were not free to devote themselves to nonagricultural pursuits. Those engaged or formerly engaged in other industries did not fully utilize their productive resources as would have been the case had there been freedom of competition and complete individualism in their industries.

Doctor Morlan's book is a valuable treatise concerning the ideas of John Stuart Mill. The reader who wishes to learn Mill's views, however, should not rely upon it as more than a commentary. It provides a supplement to, not a substitute for, the reading of Mill.

E. J. Working

University of Illinois

The Agricultural Cooperative System in Czechoslovakia, by Antonin Hůlka.

This brochure gives an illuminating picture of the development and the present state of agricultural cooperation in Czechoslovakia. Its author, a high official of the largest federation of agricultural cooperative societies, the Central Union (Ústřední jednota) of Agricultural Cooperative Societies at Prague, presents a clear idea of the principles of the organization of agricultural cooperation in that country. He gives data, up to the beginning of the year 1936, concerning 11,454 agricultural cooperative societies classified into 14 categories. He shows the number of local societies affiliated with the 12 federations or unions of agricultural cooperative societies, established in different parts of the country mainly for the distribution of loans to the local cooperative societies and for supervision over their activities. He mentions later the 11 central cooperative organizations functioning in connection with these Unions with the object of effectuating commercial transactions which are forbidden to the Czechoslovak cooperative societies under a law of 1924 on the ground of competing with financial institutions. The author also speaks of the Centrocooperativa as an organization that unites the local cooperative unions and the Central federations for the defense of the general interests of agricultural cooperation in Czechoslovakia and for control of the cooperative unions.

A special chapter is devoted to the cooperative credit system which is only a base for the agricultural cooperatives in Czechoslovakia, and which has succeeded in recent years in ridding the field of usurers of all kinds. The cooperative credit societies include 5,364 societies of unlimited liability "kampeličkys" and 737 loan societies with limited liability; these take the rôle of intermediaries between the farmers and the 12 central unions in the matter of the distribution of loans; and with all this, the abundance of cheap deposits make it possible for farmers in Bohemia, Moravia and Silesia to receive advances from the cooperative societies at a rate of interest not exceeding 5% per annum.

The 4,300 unlimited liability societies in the part of the Republic just mentioned had in 1934 a membership of 677,500. The amount of loans received by these members exceeded 3,795 million Czechoslovak crowns,[1]

[1] The Czechoslovakian crown (2.963 cents at par) has been quoted at New York between 4 and 5 cents since 1933.

while the deposits paid in to these institutions amounted to upwards of 4,882 millions. In the entire group of 6,101 cooperative credit societies that exist in Czechoslovakia, the deposits exceeded 5,913 million crowns, that is to say, they represented 11 per cent of the entire deposits in all banks of Czechoslovakia.

One chapter of the booklet is devoted to the cooperative storage associations. These cooperative societies number 335 and have more than 200,000 members. The author presents data showing the extensive operations of these cooperative societies, especially those of the largest, known as Kooperativa, and points out the important rôle played by this type of cooperative in the work of the Czechoslovak grain monopoly established in 1934.

Interesting figures are likewise given concerning the cooperative producing concerns, that is to say, those that turn out alcohol and spirits, work up milk into dairy products, turn out flour and bread, prepare chicory for the market, as well as the cooperatives for the purchase of machinery, for the exploitation of electricity, and for the sale of animal products.

In the chapter on the cooperative unions the author gives current figures touching the chief items in the balance-sheets of each union, the sum total of which for the whole of the 12 unions is 3,356 millions. The author stresses the importance of the Central Union of Agricultural Cooperatives at Prague, and notes the splendid rôle played by this institution during the crisis of the last few years, a rôle that has been highly beneficial to the national economy of the Republic as a whole.

The author illustrates the methods adopted by the cooperative unions to bring up the young people in a spirit of devotion to the cooperative idea, and to train them for posts as employees in cooperative enterprises. The last-named rôle is supplemented by the advanced School of Agricultural Cooperation at Prague, a school which is conducted in connection of the Central Union above referred to.

Finally, the author refers to the vigorous participation of the agricultural cooperative movement in Czechoslovakia in the activities of the International Federation of Cooperative Societies, such as the Commission Spéciale de la Coopération in Paris, the Intercoop at Rotterdam, the International Committee for Inter-Cooperative Relations at Geneva, the International Institute of Agriculture at Rome. M. Klindera, president of the Central Union of Agricultural Cooperative Societies at Prague, and also of the Centrocooperativa, a man of great energy and initiative, has for many years represented the Czechoslovak agricultural cooperative movement in all these organizations of international character.

The brochure which we have just examined deserves the fullest attention of all interested in the cooperative movemnt. It is brief, but at the same time it is a storehouse of contemporary data, and presents a clear picture of the existing state and most important aspects of the economic life of Czechoslovakia. To it may be applied the ancient Roman maxim: "non multa, sed multum!"

S. Borodaewsky

Czechoslovakia

NEWS ITEMS

New Civil Service Classifications

At the request of a number of government agencies, the United States Civil Service Commission will announce in the near future an examination for Social Science Analysts. The Central Statistical Board has kept in close touch with the development of this new type of examination and is anxious that all professional people who might have interest in it be notified promptly. This examination is designed to assist research agencies in most of the governmental departments where professional personnel is required in the fields of economics, agricultural economics, sociology, and political science.

A written examination will be held only for the $2000 to $2600 grades, while an unassembled examination consisting of application forms stating education and experience will be used for the grades from $3200 to $5600. Eligibles will be divided into three major fields and entered on numerous separate lists in accordance with their special fields of competence, such as banking, marketing, etc.

Plans for Graduate Work at V. P. I.

That southern farm boys may have a greater opportunity for advanced education in agricultural economics, the University of Virginia and the Virginia Polytechnic Institute have formulated plans for giving a doctor's degree in Agricultural Economics. It is planned that the candidate for a doctor's degree will obtain his training in economic theory and related subjects, and pass the foreign language requirements at the University of Virginia. The present plan contemplates that the work in farm management, marketing, statistics, prices and related subjects will be given at the Virginia Polytechnic Institute. Candidates for the doctor's degree will spend at least a part of their summers on regular projects at V. P. I. The thesis work will be under the direction of both institutions, but more specifically under the direction of the chairman of the individual graduate student's committee.

During this, the first year of the plan, five individuals are now actively working for the doctor's degree under this cooperative plan.

Mr. M. L. Wilson, a past President of the American Farm Economic Association, was appointed by President Roosevelt to be Undersecretary of Agriculture, in place of Dr. Rexford G. Tugwell. Mr. Harry L. Brown, who has been director of agricultural extension work in Georgia, was named Assistant Secretary of Agriculture in place of Mr. Wilson. Dr. Will W. Alexander takes Dr. Tugwell's place at the head of Resettlement Administration.

The National Association of Marketing Officials held its eighteenth annual convention at Nashville, Tennessee, October 20-22, 1936, representatives from 22 states taking part. The program dealt with new developments in the marketing of farm products. Officers elected were: Webster J. Birdsall, of New York Bureau of Markets, President; Thomas P. McCord, of Tennessee Bureau of Markets, Vice-President; Sidney A. Edwards, of Connecticut Bureau of Markets, Secretary-Treasurer.

Mr. John L. Stewart, of the Foreign Agricultural Service, Bureau of Agricultural Economics, attended the Canadian Outlook Conference in Ottawa, Canada, in December. Four Canadian officials, Dr. J. F. Booth and Mr. Albert E. Richards, of the Dominion Department of Agriculture, Mr. T. J. Major, of the Department of Trade and Commerce, and Mr. J. B. Fairburn, Deputy Minister of Agriculture, Province of Ontario, had attended the conference in Washington, D.C., in October.

Mr. Harrison F. Fitts, senior administrative officer, Division of Economic Information, Bureau of Agricultural Economics, has been reassigned to the Division of Marketing Research, where he will continue studies of agricultural legislation and the regulation of marketing by the Federal, State, and local governments, giving special emphasis to the study of policies of regulating marketing and the economic effects of such policies on the farmer, on the consumer, and on the trade.

Mr. Albert Duy McNair was retired October 31, 1936, from the Bureau of Agricultural Economics after 28 years of service in the field of farm management research. Mr. and Mrs. McNair are now at home in Dansville, N.Y., on the farm on which Mr. McNair was born.

Mr. George M. Pollard has joined the Division of Marketing Research, Bureau of Agricultural Economics, by transfer from the Portland, Oregon, office of the Division of Crop and Livestock Estimates.

Dr. Jesse T. Palmer, Ph.D. University of Illinois, 1936, has been appointed associate agricultural economist in the Division of Statistical and Historical Research, Bureau of Agricultural Economics, having transferred from the dairy section, AAA.

Dr. D. Rozman has been promoted to the rank of professor in the Department of Economics, Massachusetts State College, and has been appointed also Associate Consultant on the Massachusetts State Planning Board. Dr. Rozman will be on sabbatical leave until July.

Mr. Marvin M. Sandstrom has joined the Division of Economic Information Bureau of Agricultural Economics, as special agricultural research writer, by transfer from AAA where for two years he was a specialist in Information. Prior to going to Washington Mr. Sandstrom was assistant bulletin editor at Iowa State College.

Mr. Elmer L. Sauer, M.S. University of Illinois, 1931, recently resigned from the staff of that institution to become Assistant Agricultural Economist in the Bureau of Agricultural Economics in soil erosion studies.

Dr. O. C. Stine has resumed his duties in the Bureau of Agricultural Economics after spending one semester on the staff of Giannini Foundation at Berkeley, Calif.

Mr. Ray H. Teal recently resigned from the staff of the Department of Agricultural Economics at the University of Illinois to accept a position with the Equitable Life Assurance Society in New York.

Mr. David L. Wickens, since November 1926 engaged in studies in agricultural credit and finance in the Bureau of Agricultural Economics, has recently gone to Resettlement Administration as special adviser to the director on finance and credit.

TWENTY-SEVENTH ANNUAL MEETING OF THE AMERICAN FARM ECONOMIC ASSOCIATION

The twenty-seventh annual meeting of the American Farm Economic Association was held in Chicago, Hotel Stevens, December 28, 29 and 30, 1936.

At the opening session on December 28, the appointment of the two Vice-Presidents—H. M. Dixon and A. F. Vass—as election tellers was announced. The sealed ballots for the election of officers for the coming year, were delivered to them by the Secretary-Treasurer. They were instructed to report the results of the election at the annual business meeting.

Annual Business Meeting

The annual business meeting of the Association convened at 9:00 A.M., Wednesday, December 30, 1936.

The election tellers asked for a clarification of the regulations regarding the election of Vice-Presidents. The rules prescribe that,

"The persons receiving a majority of votes for each office shall be declared elected."

No Vice-Presidential nominee received a majority.

For the purpose of this election the following motion was adopted.

"The two candidates receiving the highest number of votes for the office of Vice-President shall be declared elected."

On the basis of this interpretation the election tellers submitted their report.

Report of Election Tellers

Total number of ballots cast	463
Total number of ballots counted	454
Ballots not counted due to lack of name on envelope	9

The following officers were elected:

President	O. B. Jesness
Vice-Presidents	N. A. Olsen T. W. Schultz
Secretary-Treasurer	Asher Hobson

(signed) H. M. Dixon
A. F. Vass
Election Tellers

Report of the Secretary-Treasurer

This report is divided into two parts, (1) that dealing with the year 1936, and (2) a brief résumé of the five year period 1932 to 1936, inclusive.

The Year 1936

Membership:—During the year just closed 70 members were dropped because of non-payment of dues, 2 were deceased, and 37 cancelled their membership—a total of 109. New members to the number of 141 joined the Association. This is a net gain of 32 over 1935.

A comparison of membership numbers for the years, 1934, 1935, and 1936 classified by groups is given in the table below.

Groups	1934	1935	1936	Increase or decrease 1936 compared with 1935
Individuals	613	739	765	26
Corporations in the United States	63	59	58	—1
Libraries in the United States	134	140	140	—
Foreign Libraries and Corporations	131	150	157	7
	941	1088	1120	32

As is to be expected, the slight increase in membership is in the individual class. It is to this class that the Association must look for any considerable additions to its membership rolls. The list of libraries and corporations, both in this country and abroad, has remained at about the same level during the past few years.

It is the considered opinion of the Secretary-Treasurer that no marked increase in membership is to be expected without greatly increased promotional efforts among the junior ranks of agricultural economists. Effective methods for bringing the Association to the favorable attention of members of the younger group is a problem that constantly faces the Association. Membership campaigns call for persistent attention in order that the annual turnover not be so great as to offset the advantages gained.

The present membership is the largest in the Association's history. The difficulties involved in recruiting members are becoming increasingly greater.

Finances:—The financial operations for the fiscal year ending November 30, 1936, and the financial status of the Association on that date are set forth in the statement which follows.

OPERATING STATEMENT
THE AMERICAN FARM ECONOMIC ASSOCIATION
Year Ending November 30, 1936

Operating Income			
Receipts from dues		$ 5,588.83	
Back numbers sold		331.72	
Miscellaneous (mostly advertising)		60.00	$ 5,980.55
Operating Expenses			
Journal of Farm Economics			
Volume XVIII, 4 issues	$ 2,777.08		
Volume XVIII, 4 reprints	349.71	3,126.79	
Postage		169.88	
Annual meeting expense			
Annual meeting, 1935	291.90		
Arrangements for meeting, 1936	11.80		
Ballots, envelopes, 1935 program—reprint	21.69	325.39	
Back numbers purchased		17.25	
Office supplies		19.90	
Miscellaneous			
Auditing expense, 1935	4.80		
Printing membership literature	23.65		
Telephone and telegraph	1.88		
Exchange and checks returned	10.75		
Miscellaneous	28.34	69.42	3,728.63
Excess, receipts above expenses from operations			2,251.92
Plus Non-Operating Income			
Interest on bonds		410.00	
Accrued interest, Postal Savings		30.00	
Accrued interest, Savings Account		16.69	456.69
Total Excess, receipts above expenses for the year			$ 2,708.61

FINANCIAL STATEMENT
THE AMERICAN FARM ECONOMIC ASSOCIATION
December 1, 1936

Assets			
Cash		$ 1,213.03	
Bonds (cost)*		12,237.75	
Savings account			
Principal	$ 1,000.00		
Accrued interest	16.69	1,016.69	
Postal Savings			
Principal	2,000.00		
Accrued interest	30.00	2,030.00	$16,497.47
Proprietory Interest			
Net worth, December 1, 1935		13,788.86	
Plus net returns for the year			
Operating	2,251.92		
Non-operating	456.69	2,708.61	$16,497.47
*Market value, November 30, 1936			
4M Federal Land Bank 4¼—38/58		$ 4,280.00	
4M Home Owners Loan 3/52		4,170.40	
4M Federal Farm Mortgage 3/49		4,208.00	
		$12,658.40	

The Association had a net return from operations of $2,251.92 which together with interest on investments makes a total net return for the year of $2,708.61.

The total assets of the Association (cash and government bonds) amount to $16,497.47.

The Five Year Period 1932-1936

The close of this year completes a five year term of the present Secretary-Treasurer. It is thought well to set forth a brief summary of the membership and financial developments of the Association during that period.

Membership:—Total membership has grown from 1001 to 1120. This increase of 119 is a small number. It takes on added significance, however, when considered in the light of the depression. Membership dropped to 906 in 1933. During a considerable portion of the period under survey, membership was declining in the face of strenuous efforts to sustain enrollment.

Finances:—The assets of the Association have increased from $6,788.68 to $16,497.47, an increase of $9,708.79.

The Association has another asset of considerable proportions which is not included in the financial statement. This is in the form of its stock of the issues of the JOURNAL OF FARM ECONOMICS. An inventory of the JOURNALS on hand is contained in the following table.

	No. 1	*No. 2*	*No. 3*	*No. 4*
Volume I	2	2	1	
II	6	3	4	3
III	1	5	12	12
IV	1	2	4	2
V	1	6	29	36
VI	2	25	29	65
VII	9	25	37	10
VIII	34	6	49	14
IX	106	91	59	151
X	241	115	94	58
XI	231	197	192	194

XII	153	180	171	176
XIII	211	160	191	180
XIV	260	239	156	329
XV	293	180	220	245
XVI	238	253	251	255
XVII	7	143	164	138
XVIII	112	79	160	151

The Association has a total of 7,461 copies of the JOURNAL on hand. They are sold at $1.25 per copy. Each year, a considerable number is sold. This stock provides a dependable source of income.

No attempt is made to place a monetary value upon these back numbers. Their value might be conservatively estimated at the cost of printing which would be in the neighborhood of $3,500. Their value based upon sales price would bring this figure to something over $9,000.

Early numbers of the JOURNAL are practically exhausted. The Executive Committee might well consider the advisability of securing reprints in order that the Association may continue to be in position to meet the demand for complete sets of the JOURNAL.

The Secretary-Treasurer takes this opportunity of bringing to the attention of the Association, the efficient services of Miss Celia Blasezyk. The responsibility of looking after the many details connected with the office of Secretary-Treasurer has been hers. She has discharged this responsibility in a capable manner.

Respectfully submitted,
(signed) ASHER HOBSON, *Secretary-Treasurer*

Report accepted as read.

Report of the Auditor

I certify that I have examined carefully the accounts of the Secretary-Treasurer of the American Farm Economic Association for the year ending November 30, 1936. I have checked all entries against supporting vouchers and find them in agreement. I have confirmed the state of assets by an examination of the bank statement and by checking the securities owned by the Association. I certify that the books have been carefully, correctly, and neatly kept, and that the financial statement made by the Secretary-Treasurer reflects accurately the financial transactions and the financial situation of the Association as shown by said accounts. It is noted that the income reported from back numbers of the JOURNAL sold is in part derived from the disposal of inventory, but so far it has not been deemed necessary to maintain a separate inventory account.

This is the first year that the new accounting system recommended by the Auditor of last year has been used. The new books were set up by Mr. Donald R. Mitchell and they work splendidly. The detailed work of keeping the accounts has been done by Miss Celia Blasezyk and the Association is indebted to her for carrying out this work in a most efficient and painstaking manner. The records are in such a condition that a check on them can be made easily and quickly.

Respectfully submitted,
(signed) WALTER H. EBLING, *Auditor*

Report accepted as read.

Report of the Editor of the Journal of Farm Economics For the Calendar Year, 1936

The four numbers of the JOURNAL OF FARM ECONOMICS in Volume XVIII for 1936 totaled 802 pages or exceeded by two pages the maximum limit prescribed by the Executive Committee, thus making it the largest volume in the history of the Association.

The material published included 53 papers, 17 discussions, 19 notes and 33 book reviews. In addition to the material published the Editor is holding several articles which were submitted late in the year. Although it required a portion of the third number to include the proceedings of the annual meeting, the Editor, fearing that enough articles would not be submitted to complete the fourth issue, wrote to a number of institutions suggesting that a contribution from some member of the staff would be acceptable. As a result in addition to filling the JOURNAL, a number of good papers remain unpublished, including some which were received too late to have been included in the fourth issue. It was apparent that contributions were available if space permitted.

Some of the problems facing the Editor, and concerning which he needs cooperation and consolation, include: What limits are to be prescribed for the use of cuts, the extent to which tabular material will be permitted to accompany articles, and the length of articles. When cuts are available to a contributor at his own institution, the loan of the cut if of proper size will help insure to the contributor the illustrations he desires with his article, and conserve the resources of the Association. Although contributions were solicited not to exceed 10 or 12 pages of the JOURNAL in length, those received tended to exceed this limit. Long articles add materially to the work of the Editor in that they must be cut down in order to permit a larger number of contributions. Furthermore, the majority of the articles will receive closer attention by readers if they are condensed rather than to be permitted to expand. It is good advice for a contributor to condense his own articles in order to save what he wishes published.

In presenting this report the Editor wishes to acknowledge the fine assistance of the Associate Editors, especially Mr. H. B. Price and Mr. S. W. Mendum, who respectively carried the responsibility of the notes section and the news items. With these sections properly handled no small amount of patience and effort is required. While accepting in full the responsibility for imperfections in the JOURNAL, the Editor wishes also to acknowledge the cooperation of members of his own staff in reading manuscript and handling other duties which fall upon the Editor providing he cannot pass them on.

Additional comments growing out of the year's experience, it is hoped, will find their way into the report of the Policy Committee, some of which may be mentioned as follows: It is the belief of the Editor, that, with the increased volume of material coming into our annual meeting, it would be well to devote the first issue largely to a proceedings issue with a size twice as large as the present. This would provide for publishing a larger number of the papers promptly after the annual meeting. While such an issue would not take care of all the proceedings it would leave at least the last two issues of the year open to contributions. The experience this year indicates that the contributions would be forthcoming and of the calibre

justifying publication. If such a change were to take place it would require the cooperation of the membership if articles of the best grade are to be contributed to the regular issues of the JOURNAL.

It is believed further that the interest of the Association will be better served if contributed articles, including tables and cuts, are limited to a space not to exceed 10 or 12 pages maximum in the JOURNAL as this will provide opportunity for a larger number of contributors as well as require the contributors to give consideration to the condensation of their own material. In addition, with the growth in the number of round-table sessions at the Annual Meeting, it is believed that a secretary appointed for each round-table should be commissioned, with the aid of the chairman, to report the pertinent contributions at the round-table in a stated space limit for publication in the JOURNAL, with very few of the round-table papers being published in full.

Relative to the resolution passed at the last annual meeting recommending consideration of charging contributors to the JOURNAL for exceeding a stated maximum amount of space for an article, the Executive Committee has decided not to adopt a definite policy, but has instructed the Editor to use his discretion in reducing the length of articles on the basis of merit.

One of the most urgent needs of the Editor is promptness in getting material in and in returning manuscripts after they are set in galley proof. Usually one or more articles are returned after the proof has been returned to the printer with the request for minor changes. The Editor is constantly beset with the problem of deciding whether to send material in before it has been corrected by the author even though he personally may read it carefully or whether to hold up the issue of the JOURNAL to get a few straggling letters requesting changes. The usual alternative is to set an arbitrary dead line, perhaps to the disappointment of an occasional contributor. Not infrequently changes are requested which are rather immaterial to the article and which add to the cost and delay of issuing the JOURNAL. On the whole, however and not merely in keeping with the spirit of the season, the Editor wishes to take this opportunity to express his appreciation for the splendid cooperation which he has received from contributors, and their acceptance of changes and the omission of parts of their manuscripts.

In closing he wishes to say he is ready to release the Editorship as promptly as the Executive Committee can find someone willing to assume the responsibilities.

(signed) H. C. M. CASE, *Editor*

Report accepted as read.

President's Report

By request of the Executive Committee, at the instigaton of Secretary Hobson, I hereby submit my report as retiring President.

The Secretary-Treasurer has advised you on the statistical and accounting aspects of the health of the Association. Its intellectual status you can judge from the programs at this annual meeting. To me falls the pleasant duty of reporting that its spiritual condition is excellent. You were rash to elect one who has never studied or served in a state agricultural college or the United States Department of Agriculture, who had never taken

or taught a course in agricultural economics, and who had the further handicap of living on the western fringe of the country. At best, the President's task is heavy. Fortunately, mine has been lightened and made enjoyable by the exceedingly intelligent and generous cooperation that so many of you have given. This has touched me deeply, and it reflects high credit upon the Association that I have had the honor to serve.

Matters of Association policy are the subject of a committee report that will shortly be given. My experience leads me to offer two suggestions. (1) The "scatter" of members gives rise to problems in managing the affairs of a country-wide association. Your Executive Committee can seldom get together except at the annual meeting. Under these circumstances, effective administration requires concentration of responsibility. In my judgment the President, Secretary-Treasurer and Editor should each be entrusted with large powers. Between meetings these three might well constitute an inner Executive Committee, with the Executive Committee so-called functioning as an advisory council. (2) So long as the custom prevails of having the President primarily responsible for the annual meeting program, you do well to put vigorous health high among the qualifications for nomination, and to refrain from loading this officer with the burden of preparing a presidential address.

My two predecessors generously put at my disposal selected materials relating to their handling of the program planning. This material and their counsel have been especially valuable. I shall hand on the torch in like fashion. My most voluminous report will be to my successor. I hope that he can profit not merely by my experience but by my mistakes and oversights, and take advantage of bright ideas and valuable advice that I was incompetent to use.

Respectfully submitted,

(signed) JOSEPH S. DAVIS

Report accepted as read.

Report of the Farm Credit Committee

At the annual business meeting of the American Farm Economic Association in 1932, a Farm Credit Committee was appointed. This appointment grew out of a conference with Mr. D. H. Doane of the American Society of Farm Managers, at which time the desirability of providing for a joint committee of various groups interested in agricultural credit was discussed.

At the business meeting of the Association, H. C. M. Case was named as the representative of the American Farm Economic Association to work with other organizations in a joint committee on farm credit. A committee was named by the American Farm Economic Association, to which Dr. Case was responsible.

Shortly after the appointment of the committee, Mr. D. H. Doane and Dr. H. C. M. Case arranged to call together representatives of insurance companies, the agricultural press, the American Farm Bureau Federation, the Grange, The Farmer's Union, the Federal Land Bank and the Joint Stock Land Banks, and the National Joint Committee on Rural Credits was formed. Growing out of the first year's work of the committee various committee reports were prepared on certain aspects of the farm credit situation. At the annual meeting of the American Farm Economic Associa-

tion in 1933, papers were presented which dealt with subjects of reports which were prepared at the request of the joint committee, known as the National Joint Committee on Rural Credit. These subjects included: handling delinquent farm mortgages without foreclosure; legislation pertaining to farm debt problems; taxation as related to farm credit problems; farm debt adjustments through the aid of voluntary committees; and principles of land appraisal. The purpose in naming these committees was to study the particular questions indicated in the titles from the standpoint of offering suggestions and improvements in the whole situation.

The problem which has received paramount consideration during the last two years has been the one dealing with land appraisal. Some of these active in the work on the committee on farm appraisals participated in the program of the Farm Economic Association in 1934, and since that time there has been a number of meetings held to perfect the report of the committee on farm land appraisal.

The work of the committee has been an influential factor in getting institutional lenders to adopt better and more standard methods of appraisal, and consequently to improve the basis for making farm loans, thus avoiding the over-burdening of land with indebtedness. A number of companies have definitely installed new systems of land appraisal, and others are taking a decided interest in the development of the work. It is believed that this will continue to be an important phase of work for some time to come, and that the committee has a continuing function to fill in this connection.

As indicated in the above report, for a two year period the representative of the American Farm Economic Association was responsible to a Committee of the Association. Two years ago action was taken appointing the chairman of the Credit Committee the representative of the Association.

Respectfully submitted,

(signed) H. C. M. Case

Report accepted as read.

Report of the Committee on the Agricultural Census

This committee has been carried since December, 1933, as a joint undertaking with the Social Science Research Council's Committee on Social and Economic Research in Agriculture. During its first year it was closely associated with the Committee on Government Statistics and Information Services.[1] Through its chairman, Dr. John D. Black, it participated in parts of the discussions relating to the Agricultural Census of 1935. The committee was reconstituted in the summer of 1935, and has since held three meetings, one in New York on December 29, 1935, one in Washington on January 3, 1936 and one in Washington June 29 to July 2, 1936.

In these three meetings the plan has been to crystallize and state certain general principles with respect to the Census of Agriculture and to consider how the Census and its problems could be made better known to members of this association and ways in which the enumerations could be improved and made more useful. The committee's discussions have

[1] Established in 1933 by the American Statistical Association and the Social Science Research Council for work along lines similar to those now carried on by the Central Statistical Board.

covered a broad field of subject matter and many problems, and it has been possible to draw upon an extensive and representative body of experience and study on the part both of committee members and of others who have participated in the discussions.

A report of some 60 pages in length has been prepared. This we believe contains material which would be of definite interest to a considerable portion of the Association's membership. We believe also that the report should be disseminated rather widely with a view to improving the general understanding of the Census and to stimulating thought and constructive suggestion. The report is not suited to oral presentation because of its length. We recommend, therefore, that the Executive Committee of the American Farm Economic Association and the Advisory Committee of the Social Science Research Council as joint sponsors of this Committee's work consider the publication of the report either as a monograph of the American Farm Economic Association or as a bulletin of the Social Science Research Council.

In an effort to define more clearly this committee's responsibilities and purposes the President of the American Farm Economic Association and the Chairman of the Committee agreed last spring on a general statement of its terms of reference as follows:

"As the source of important basic date for social and economic research in agriculture, the Census of Agriculture is of major concern to members of the American Farm Economic Association, who must draw heavily upon its collections.

"The Association looks to this Committee to develop a fuller knowledge of this phase of the work of the Bureau of the Census, the problems that it involves, and the resulting data, with the special object of promoting steps by which the data may be made more valuable and their interpretation safeguarded. In due course it should give consideration to problems that the taking of the Census of 1940 will involve.

"In seeking to clarify these problems and to contribute toward their solution, the Committee is requested to enlist the cooperation of the Bureau of the Census, the Central Statistical Board, and other official agencies concerned, and to maintain suitable contacts with the Social Science Research Council's Advisory Committee on Social and Economic Research in Agriculture.

"It is suggested that this Committee regard its work as part of a continuing enterprise, which, however, may in the future, as in the past, take different forms from time to time; and that so long as it continues as a Committee of the Association, it should look forward to a gradually changing personnel from year to year. It is requested to submit a progress report to the Executive Committee of the Association not later than December 1, 1936."

As many of you are aware, plans have been under discussion in the American Statistical Association, the American Economic Association, the Central Statistical Board and the Bureau of the Census for better coordinated and more orderly advisory relationships with the Census Bureau. Until these plans take definite form or are abandoned, it is difficult to see clearly just how the interest of the agricultural economists in these problems can best be represented. We recommend therefore that the Association maintain a committee on the Census of Agriculture, at least until such time as the relationships with other professional associations and with the governmental agencies become more clearly defined and agreed upon. We also recommend that appointments to the committee

terminate as of March 31 so that the incoming President and Executive Committee may feel free to rotate membership on the committee or to terminate its activities if that seems desirable. At the same time we call attention to the fact that considerable time is required for committee members to gain familiarity with the census and its problems and that too rapid a rotation of membership may not be in the interests of effective functioning.

Proposed developments in Washington, such, for example, as the Buchanan plan of annual sample enumerations, may affect very considerably the statistical activities of both the Census Bureau and the Department of Agriculture. It would seem desirable therefore that some definitely constituted group representing the agricultural economists of the country be charged with responsibility for keeping in touch with the developments in this field.

In summary it is proposed that the committee be continued as at present until March 31, 1937 and that the incoming President be authorized to appoint with the approval of the Executive Committee a new committee as of April 1, or to take such other action as will in their judgment provide for suitable consideration of the interests of the members of the Association in matters relating to the Census.

Respectfully submitted,

(signed) M. R. BENEDICT, *Chairman*

Report accepted as read.

Report of the Committee on Recruiting and Training Personnel in Agricultural Economics

The Committee on Recruiting and Training Personnel in Agricultural Economics was appointed late in the year so that only a brief report of progress is possible at this meeting. This committee was appointed because of the increased demand for men trained in agricultural economics and the apparent lack of an adequate supply of well-trained and experienced men to fill the ranks of those drafted for other work and the new positions resulting from the expansion in the demands for the services of men trained in agricultural economics.

Your committee offers the following recommendations:

1. That the committee be continued during the coming year with such changes in personnel as seem advisable to the incoming administration.

2. That in its further work, the committee correlate its activities with the similar work under way under the auspices of the Committee on Social and Economic Research in Agriculture of the Social Science Research Council.

3. That during the coming year, the committee make a survey of the existing conditions as they relate to the loss of staff members by agencies conducting work in agricultural economics and the adequacy of the training and experience of recent replacements on staffs and recent additions to staffs.

4. That a study be made of the opportunities for further professional training for federal employees to determine if opportunities now open to employees of certain federal agencies also could be extended to those in agricultural economic work and that practices in other nations be determined.

5. That the possibilities of temporary interchange of staff members among various agencies doing work in agricultural economics be investigated to determine if this practice could be increased to the greater advantage of agencies and men.

6. That the committee determine practicable and available means of overcoming the existing shortage of well-trained men in the field of agricultural economics.

7. That the committee be authorized to report to the Executive Committee, if the progress of its work warrants during the coming year, and, on authorization of the Executive Committee, that any agreed upon program of action be initiated at once.

Respectfully submitted,
(signed) W. E. GRIMES, *Chairman*

Report accepted as read.

Report of the Committee on Association Policy

The report was read. It contained a number of suggested amendments to the constitution as well as recommended changes in policies not covered by existing regulations. In view of the limited time available for considering these recommendations, the President consulted the wishes of the meeting regarding the disposition of the report.

It was moved and seconded that the report of the Committee on Association Policy be published in the JOURNAL and that the recommendation for the enlargement of the JOURNAL be approved; that the report as a whole come up for reconsideration at the next annual meeting.

This motion was amended as follows:

That the Association act provisionally during the coming year under the recommendations submitted in the report of the Committee on Association Policy and that the report be published in the JOURNAL during the year and come up for final consideration at the next annual meeting.

The amendment was carried.

The report of the Committee will be published later and made a special order of business at the next annual meeting.

Executive Committee Action

Meeting of December 28, 1936

1. The President is authorized to appoint an Investment Committee of three, including the Secretary-Treasurer, who shall be ex-officio chairman. This committee is empowered to invest and reinvest the reserve funds of the Association. All actions of the committee shall be reported periodically to the Executive Committee.

2. The Secretary is instructed to purchase fidelity bonds to cover the financial responsibility of himself and assistant, the amounts of these bonds to be determined by the Investment Committee.

3. Relative to the resolution passed at the last annual meeting recommending consideration of charging contributors to the JOURNAL for exceeding a stated maximum amount of space for an article, the Executive Committee decided not to adopt a definite policy but instructed the Editor to use his discretion in reducing the length of articles on the basis of merit.

4. The report of the Committee on Association Policy was received,

considered and modified. The chairman of the committee was instructed to present the modified report to the annual business meeting for consideration and action.

Meeting of December 30, 1936

1. Professor H. C. M. Case was reappointed Editor of the JOURNAL OF FARM ECONOMICS for the coming year.

2. The Editor is authorized to increase the size of the JOURNAL to not to exceed 1,000 pages for the four quarterly issues. This action is in accordance with recommendations of the Committee on Association Policy.

3. The President is authorized to appoint a committee to cooperate with the Committee on Manufactures of the United States Senate in accordance with the request of the Director, Investigations of the National Economic Council, dated December 28, 1936.